SOAP

OCTOBER 1936

LAURINE

HAS MADE GIVAUDAN HEADQUARTERS FOR

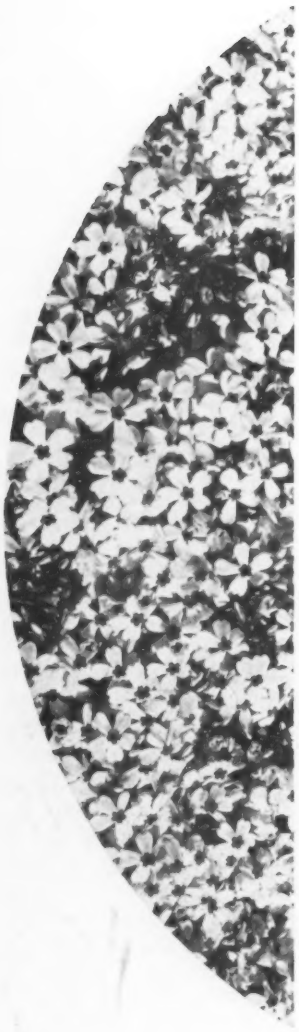
HYDROXYCITRONELLAL 100%

• LAURINE represents the finest grade of hydroxycitronellal produced. Its quality, achieved by the use of specially designed apparatus and distilling methods in our plant at Delawanna, has established a new standard and made Givaudan headquarters for exacting users of this product. If you want the finest available—a 100% pure product, entirely free from all inert residue, terpenes or foreign aldehydes—make Givaudan your headquarters also. A sample will be sent to you on request.

GIVAUDAN
DELAWANNA, INC.
80 FIFTH AVENUE, NEW YORK, N. Y.

SOAPS
INSECTICIDES
DISINFECTANTS
CHEMICAL SPECIALTIES
SANITARY SUPPLIES
POLISHES
CLEANERS

Soap Perfumes



ODOR is perhaps the most important factor in the successful merchandising of toilet soaps. Competition being what it is today, the up-to-the-minute soap manufacturer is insisting on the very best possible perfume available, at a price within reasonable limits.

Our laboratories, based on the long experience of our principals Chuit Naef & Cie., Geneva, Switzerland, are turning out remarkably fine floral and bouquet odors for toilet soaps at surprisingly low figures.

Included in our most recent successful developments are GARDENIA, JASMIN, GERANIUM, LAVENDER, LILAC, FOUGERE, BOUVARDIA, MUGUET, ROSE DAMASCENA, and numerous bouquet types.

Samples and Quotations on Request

Firmenich & Co., Inc.

135 FIFTH AVE., NEW YORK

LIBRARY
RECEIVED
1936
U. S. Department of Agriculture

The neutral chemical cleaner for floors, which out-performs all soap cleaners. Gives streakless cleaning and a lustrous film that fortifies against wear. Harmlessly neutral in concentration or dilution.

The farther he goes, the better it pays because repeat orders never peter out. Join the lucky prospectors now digging in with products of scientific manufacture. And keep repeat profits under control and UNDER YOUR OWN LABEL.

Fuld "Thirty-sixers" Hit the Rich Vein of

Repeat Orders

WHAT FULD MAKES for the LEADERS

LIQUID CLEANERS
- Pine Scrub Soap
- Liquid Scrubbing Compound
- Sassafras Scrub Soap
- Floor Bleach
- Rug Shampoo

INSECTICIDES
- Roach Powders
- Fly Sprays
- Cattle Sprays
- Pyrethrum Sprays
- Moth Spray
- Rat Exterminators
- Sprays for Special Purpose Concentrates

FLOOR WAXES and SEALS
- Self-Polishing Wax
- Liquid Wax
- Wood Seal
- Gym Seal
- Terrazzo Seal
- Wax-Var
- Paste Wax
- Dance Floor Wax

CONTAINERS
- Urinal Strainers
- Wall Containers
- Soap Dispensers

CLEANING COMPOUNDS
- Washing Compounds
- Window Cleaner
- Scouring Compounds
- Fabric Cleaners
- Weed Killers
- Waterless Cleaner
- Beer Coil Cleaner
- Paint & Varnish Remover
- Sterilizing Agents
- Tile Bleach

LIQUID DEODORANTS
- Chlorozif
- Forma Chloro Sprays
- Theatre Sprays
- Pine Deodorant
- Drip Machine Fluid

LIQUID and BASE SOAPS
- Liquid Hand Soaps (All percentages 10 to 40%)
- Shampoos
- Cocoanut Oil Base Soaps

OIL and SOFT SOAP
- All Percentage Oil Soaps
- Jelly Soaps

DISINFECTANTS
- Pine Oil
- Coal Tar (All Co-Efficients)
- Cresol Compounds
- Chlorine
- Powdered Chlorine

POLISHES
- Count 1234567
- Metal Polishes (Liquid, Paste & Powdered)
- Auto Polish
- Furniture Cream
- Furniture Polish
- Floor Oil
- Silver Pastes and Creams

PLUMBING SPECIALTIES
- Drain Pipe Cleaners
- Liquid & Powdered Bowl Cleaners
- Tile & Enamel Cleaners
- Boiler Compounds

DEODORANT BLOCKS and CRYSTALS
- Urinal Blocks
- Deodorant Blocks 2 to 40 oz. sizes
- Deodorant Crystals

FULD BROS.
BALTIMORE. MARYLAND

DELICATELY SCENTED SOAPS ARE WHAT I LIKE!
DUPONT
Reg. U. S. Pat. Off.
AROMATICS
Quality Aromatics to meet every need of the Soap Manufacturer
E. I. DU PONT DE NEMOURS & CO., INC.
ORGANIC CHEMICALS DEPARTMENT
FINE CHEMICALS DIVISION
WILMINGTON, DELAWARE

SOAP

Volume XII
Number 10

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October, 1936

MEMBER AUDIT BUREAU OF CIRCULATIONS

SANITARY Products Section, which is included as a department of every issue of SOAP, begins on page 79. Production Section begins on page 67.

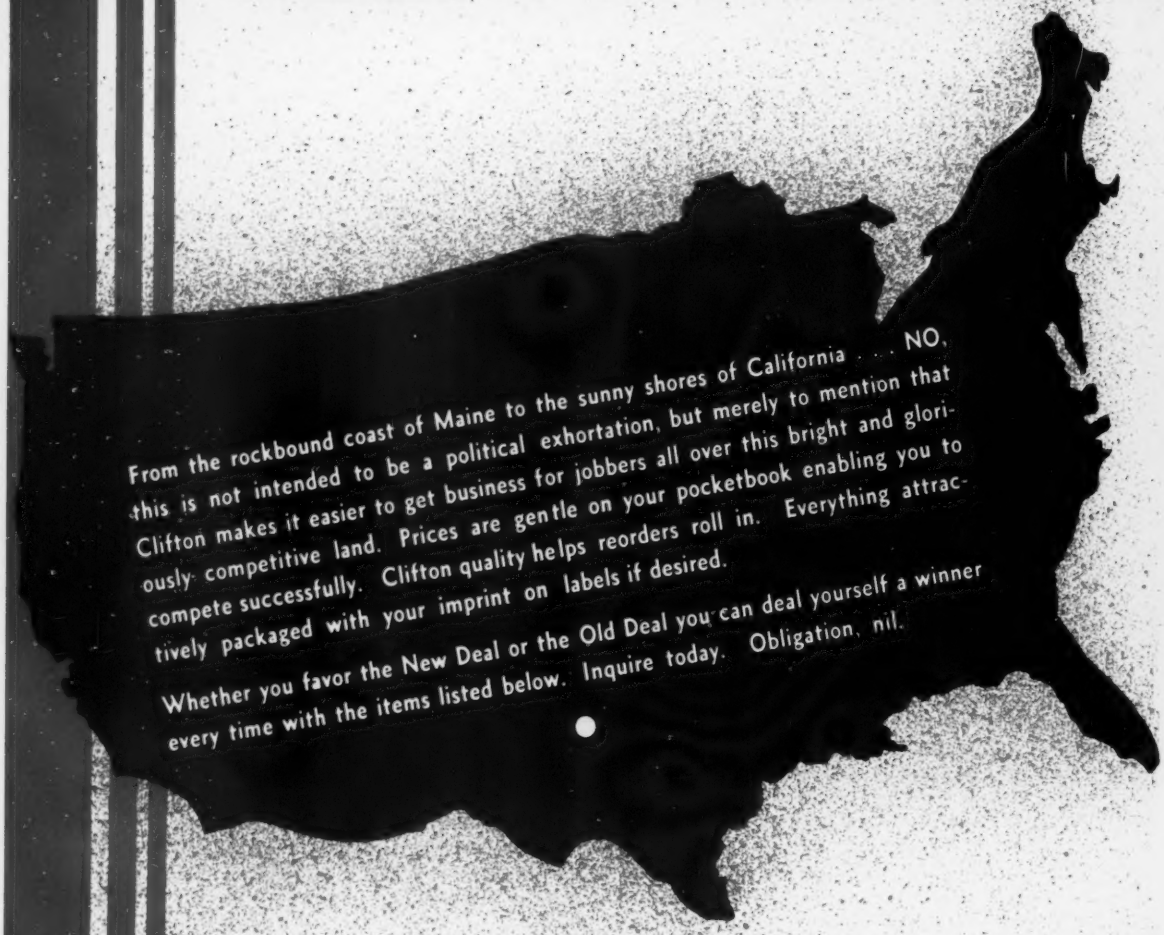
«

Published monthly by

MAC NAIR-DORLAND COMPANY, INC.
254 WEST 31st STREET NEW YORK, N. Y.

Subscription rate, $3.00 per year. Foreign, including, Canadian. $4.00. Copy closing dates—22nd of month preceding month of issue for reading matter and 10th of month preceding month of issue for display advertising. Entered as second-class matter, April 11, 1931, at Post Office, New York, under act of March 3, 1879. Mail circulation, September, 1936, issue, 3,562 copies. Total distribution, 3,850.

FELLOW COUNTRYMEN!



From the rockbound coast of Maine to the sunny shores of California . . . NO, this is not intended to be a political exhortation, but merely to mention that Clifton makes it easier to get business for jobbers all over this bright and gloriously competitive land. Prices are gentle on your pocketbook enabling you to compete successfully. Clifton quality helps reorders roll in. Everything attractively packaged with your imprint on labels if desired.

Whether you favor the New Deal or the Old Deal you can deal yourself a winner every time with the items listed below. Inquire today. Obligation, nil.

CLIFTON

TEAR OFF HERE

CLIFTON CHEMICAL CO., 246 Front St., New York City.
We are interested. Without obligation send details on items checked.

- ☐ CONCENTRATED LIQUID SOAP
- ☐ COCONUT OIL BASE
- ☐ OLIVE OIL BASE
- ☐ DISPENSERS
- ☐ RUB-NO WAX
- ☐ DEODORIZING CAKES
- ☐ DEODORIZING BLOCKS
- ☐ WALL CONTAINERS
- ☐ METAL POLISH
- ☐ MOPPING VARNISH
- ☐ DISINFECTANTS
- ☐ FURNITURE CREAM
- ☐ INSECT KILLER
- ☐ SPOT REMOVER
- ☐ SHAMPOOS

NAME .....

ADDRESS .....

AQUAROMES

WATER SOLUBLE PERFUME OILS

Actual photographs of Felton Aquarome in water solution in comparison with ordinary water soluble perfume oil.

WATER soluble perfume oils are consistently increasing in importance in the manufacture of Shampoos, Liquid Soaps, Theater Sprays, Deodorant Sprays, Formaldehyde preparations and many others.

The development of FELTON AQUAROMES is a major factor in this Field, enabling the perfuming of all these types of products without difficulty. Completely soluble in water to an absolutely clear solution, Aquaromes leave no trace of oil film or cloudiness.

AVAILABLE IN A LARGE SELECTION OF POPULAR ODORS . . . AND PRICED FOR ECONOMY!

*AQUAROMES—(Reg. U. S. Pat. Off.)

WRITE FOR SAMPLES TODAY!

FELTON CHEMICAL COMPANY

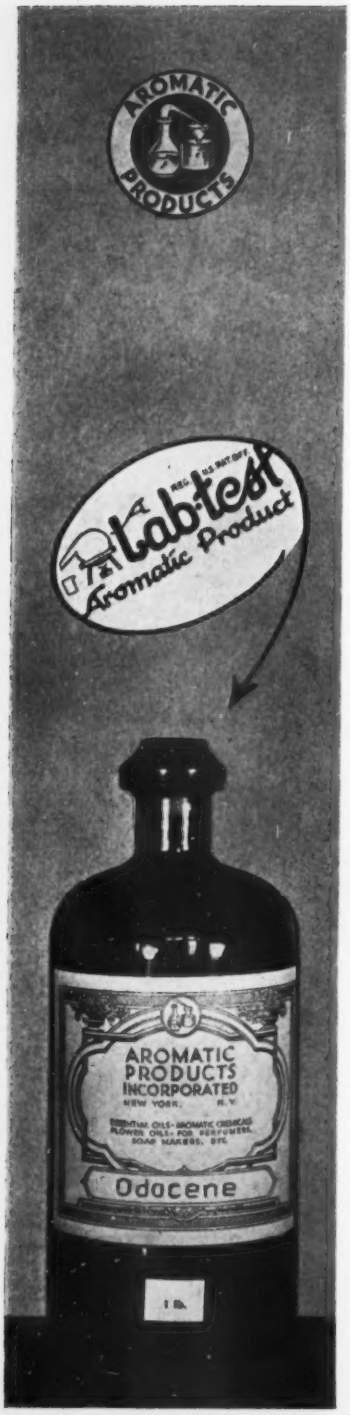
INCORPORATED

603 JOHNSON AVENUE, BROOKLYN, N. Y.

Manufacturers of AROMATIC CHEMICALS, NATURAL ISOLATES, PERFUME OILS, ARTIFICIAL FLOWER AND FLAVOR OILS

Executive Offices and Factory: 603 JOHNSON AVE., BROOKLYN, N. Y.

Boston, Mass. 76 Boylston St. | Philadelphia, Pa. 200 So. 12th St. | Sandusky, Ohio 1402 W. Market St. | Chicago, Ill. 1200 N. Ashland Ave. | St. Louis, Mo. 245 Union Blvd. | New Orleans, La. Balter Bldg. | San Francisco, Calif. 512 Washington St. | Los Angeles, Calif. 515 So. Fairfax Ave.



Odocene

For FLY Sprays

ODOCENE is an entirely new type of fly spray odor, having a clean, refreshing scent that is universally pleasing.

The remarkable covering power of Odocene makes its use particularly desirable where economy without sacrifice of odor is paramount.

Make your own tests with Odocene and be convinced of its superiority.

PRICE

$2.50 per lb.

SAMPLES

Sample furnished upon request, together with full information.

PERFUME SPECIALISTS

We specialize in perfume odors for all purposes.

Write us regarding your problems— We can help you!

There is no substitute for experience.

AROMATIC PRODUCTS, INC.

15 E. 30TH ST. NEW YORK CITY -- *FACTORY* - STAMFORD, CONN.

P. Q. SILICATE SERVICE *thorough-going*

HAVE YOU a formula problem in your plant? Perhaps its solution hinges on a silicate of soda. If so, consult freely P. Q. Silicate Headquarters at Philadelphia.

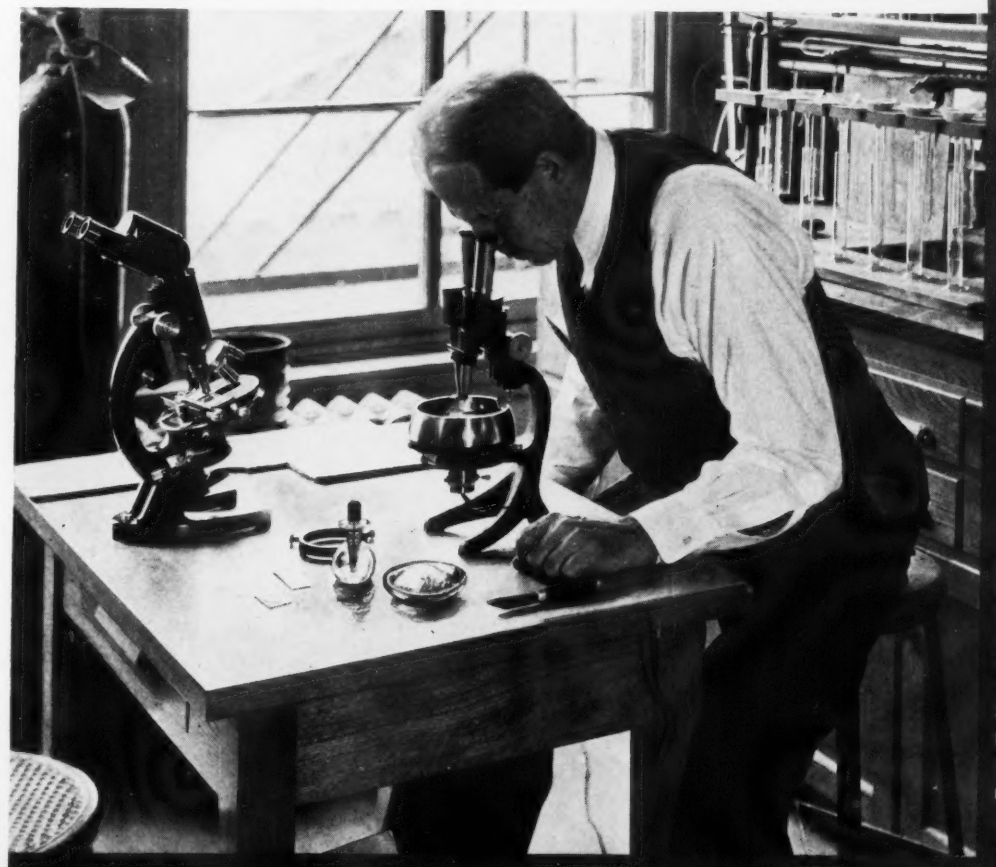
When you put P.Q. to work, wheels are put in motion. Our research men have the background of experience in silicated detergents and soaps that began 'way back in the Sixties. A thorough study is made in the plant or in the laboratory as the case requires.

Your selection of P. Q. Silicate of Soda insures dependable quality and delivery, plus a generous advisory service.

Established 1831

PHILADELPHIA QUARTZ CO.

General Offices and Laboratory: 125 S. Third St., Philadelphia, Pa. Chicago Sales Office: Engineering Bldg. Sold in Canada by National Silicates Ltd., Toronto.



P.Q. WORKS
ANDERSON, IND.
BALTIMORE, MD.
CHESTER, PA.
GARDENVILLE, N.Y.
KANSAS CITY, KANS.
RAHWAY, N.J.
ST. LOUIS, MO.
UTICA, ILL.

SILICATES *of* SODA

WHAT HAPPENS

WHEN A LINER FAILS TO FUNCTION IN A MOLDED CAP?

It is serious business if a liner in a molded cap for any reason fails to properly protect the contents. Anchor from its long experience with sealing problems recognized and provided for that when the Anchor Molded Cap was first designed. It has always been and still is the only molded closure made with a patented, exclusive liner retaining ledge and liner recess. These features insure that a liner will always be present and will function properly, that there will be no leakage to contend with, to spoil the outside of the package or mess up the label, to injure anything with which the package may come in contact if it should be placed in a travelling bag or suitcase. There is no evaporation, no appearance of slack filled containers, no loss of essential elements, no dangerous concentration of strength. May we send you our booklet describing these features in detail? ANCHOR CAP & CLOSURE CORPORATION, Long Island City, New York; Toronto, Canada. *Branch offices in all principal cities.*

HOW THE ANCHOR LINER RETAINING LEDGE AND RECESS PREVENT LINER TROUBLES—

These two features of construction can be seen in the photograph of the inside of an Anchor Molded Cap to the left. They hold liners securely in place yet allow them to rotate freely as caps are applied. Thus, liners will not fall out in transit nor in application; they will not stick to the bottle top when caps are removed; caps come to you completely assembled, ready to apply and need not be examined before sealing; use of adhesives with the danger of introducing foreign odors and flavor is obviated; wrinkling or buckling is eliminated; injury to the surface of the liner is prevented . . . in short, the liner is always present, in position, flat in the cap, giving full protection to the contents of the package during its entire life.

Caps by ANCHOR

Brothers . . .

Midget or giant makes no difference; these Salem containers are brothers in quality. Both are products of Salem Glass Works, an organization skilled and experienced in the making of fine commercial glassware for many years. In strength, in the sparkling brilliance of the glass itself, in accuracy and uniformity of capacity and finish . . . Salem ware is outstanding.

While these particular containers are for chemicals and drugs, other Salem items are suitable for practically all pharmaceutical and cosmetic purposes as well as for wines, liquors and packaged specialties of all kinds. SALEM GLASS WORKS, Salem, N. J. *Associated with* CAPSTAN GLASS COMPANY, Connellsville, Pa. *Branch offices in all principal cities.*

CAPSTAN *Glass*

BASIC PERFUME MATERIALS

We are offering a very complete and diversified line of Essential Oils and Aromatic Chemicals of particular interest to Soap Makers and Manufacturers of Paradichlorbenzene and Naphthalene products. When in the market may we have the opportunity to submit prices and samples for comparison?

As representative of the well known house of Bertrand Freres, S/A of Grasse, France, we are in a position to offer oils such as Lavender, Geranium, Thyme, Rosemary, etc., of the highest quality at competitive prices.

SUPER SOLUBLE PERFUME BASES

Our laboratory has recently developed a line of concentrates which produce perfectly clear products when used in the proportion of one to two ounces per gallon of water. This new type of base is offered in a wide range of odors, each at $1.75 per pound. A working sample will be forwarded upon request.

National Association of INSECTICIDE & DISINFECTANT MANUFACTURERS Incorporated 1914

P. R. DREYER INC.

12 East 12th Street New York

"It's the Odor that Sells the Product"

We proudly announce

H-S COMPOUND*

LATHERING TEST

88 p. p. m. Hardness Water

Temperature—115° F.

2% Solutions

Shaken 20 times

Photographed 3 minutes after shaking

IT MAINTAINS *the* LATHERING POWER *of* FILLED SOAPS *with* ONE-THIRD LESS SOAP CONTENT

The photograph reproduced above tells its own story! **It's proof** that H-S Compound will enable you to use higher percentages of silicate in the crutcher formula with no sacrifice in the quality of your product . . . to attain lower manufacturing costs with no danger of a bad consumer reaction.

Nor are these the only features of H-S Compound. It eliminates the poor appearance of highly-filled soap chips . . . gives them the look of high soap content chips. It increases yields at equivalent moisture content. It prevents the separation of silicate in the crutcher or soap frame. It can be used with high rosin content soap.

Our technical staff is ready to cooperate with manufacturers interested in incorporating H-S Compound in their soaps. We invite your inquiries.

*Patent Applied For

THE STANDARD SILICATE COMPANY

KOPPERS BUILDING PITTSBURGH, PA.

Plants at

LOCKPORT, N. Y. MARSEILLES, ILL.

"STANDARD"
Always a good silicate specification

IF YOU HAD USED MUNN
IN THE FIRST PLACE
THERE WOULDN'T HAVE
BEEN ANY DIRT IN IT.

MUNN

NEWPORT
PALE WOOD ROSIN

● Munn is ordered by soap manufacturers with the confidence of a doctor prescribing a drug by name. And for the same reason. The laws of science cannot change in the production of Munn any more than in the production of a drug. Uniformity and Cleanliness are absolute. Scientific control in Newport methods makes that a certainty. Specify Munn and be sure.

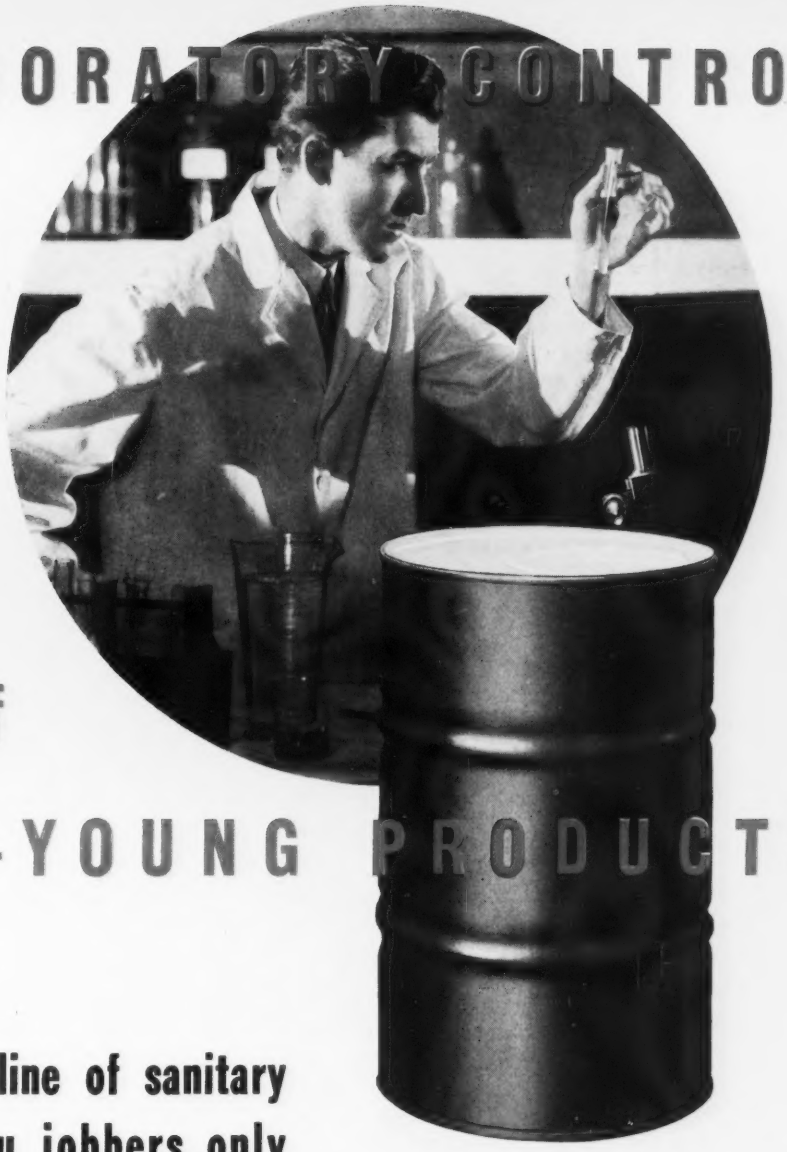
GENERAL NAVAL STORES COMPANY, INC.

Address Main Office: 230 Park Avenue, New York City

NEWPORT

Plants: De Quincy, La.; Pensacola, Fla.; Bay Minette, Ala.

LABORATORY CONTROL



assures uniform quality of

DAVIES-YOUNG PRODUCTS

NOW a complete line of sanitary supplies sold thru jobbers only

DISINFECTANTS • INSECTICIDES • DEODORANT BLOCKS • POLISHES • WAXES • GYM FINISH • FLOOR SEAL • OIL SOAPS LIQUID SOAPS • COCONUT BASE SOAPS

THE DAVIES-YOUNG SOAP CO.
DAYTON, OHIO

A Market for
SOAPS
SANITARY PRODUCTS
SANITARY ACCESSORIES

Because SOAP thoroughly covers the entire soap, sanitary products and chemical specialty fields, including janitor supply houses as well as manufacturers, the magazine is a market place for all kinds of bulk and private brand products and sanitary accessories. Whether you sell soap bases, finished bulk or private brand soaps of any kind, disinfectants, insecticides, floor or moth products, mops, brushes, floor machines or, in fact, anything in this line that is handled on a jobbing basis, SOAP is the magazine to use for advertising.

Look on page 134 for a complete list of firms advertising bulk products. Most of these advertisers have been using space for several years. In a good many instances they are now using considerably more advertising than they were at the start. What better recommendation as a result getter could SOAP possibly have? As for sanitary accessories—the same firms buy mops, brushes, floor machines, etc., as buy bulk and private brand products for resale.

If you are in position to handle business of this type why not get full information about what SOAP has done for others in the bulk field? Remember—even manufacturers buy bulk and private brand products because few concerns interested in marketing a complete line have facilities for making everything in their own plants. Add to this the requirements of the regular janitor supply industry and you have something worth making a special effort to get.

Advertising Department, SOAP
254 W. 31st St. New York City

FOR YEARS our Rhodinol Coeur, Geraniol Coeur, Linalool Coeur have been the standard by which discriminating buyers judge quality.

Now PHENYL ETHYL ALCOHOL COEUR joins this merit class.

Don't take our word for its superiority but test it yourself. *First for odor.* You will find it totally free from any unpleasant impurities.

Then the chemical analysis. This shows no trace of esters, no chlorine, a specific gravity of 1.0230, a refractive index of 1.5327 and a solubility of 1 in 50 parts of water. This extremely high solubility is the concluding proof of its extreme purity.

No other commercial product equals those tests; we know of only one imported product that equals them but its price is far higher.

PHENYL ETHYL ALCOHOL COEUR *stands supreme and is offered at the price of the ordinary quality.*

van Ameringen-Haebler, Inc.

315 FOURTH AVENUE, NEW YORK

Chicago *Toronto* *Los Angeles* FACTORY, ELIZABETH, N. J.

Manufacturers and Importers of Aromatic Essentials

AROMATIC CHEMICALS — ESSENTIAL OILS — FLAVORS — PERFUME SPECIALTIES —

HEAVY CHEMICALS

TRISODIUM PHOSPHATE

SODIUM SILICATE **SODIUM FLUORIDE**
SALT CAKE **NITRE CAKE**
GLAUBER'S SALT **SULPHURIC ACID**

And Other Heavy Chemicals of Standard Purity

PRODUCTS of standard quality and uniformity packaged for safety in transit, stocked at strategic points and shipped to reach you at the lowest transportation cost —are these not reasons for decided preference? Your inquiry, by 'phone, wire or mail, will receive prompt and intelligent attention at the Company office nearest you.

GENERAL CHEMICAL COMPANY
Home Office: **40 Rector Street, New York, N. Y.**
Cable Address: **LYCURGUS, N. Y.**

Sales Offices: Atlanta, Baltimore, Boston, Buffalo, Charlotte, Chicago, Cleveland, Denver, Kansas City, Los Angeles, Minneapolis, Philadelphia, Pittsburgh, Providence, San Francisco, St. Louis, Seattle

In Canada: The Nichols Chemical Company, Limited, Montreal, Toronto

Also **BAKER & ADAMSON C. P. Acids, Laboratory Reagents and Fine Chemicals**

ONE WAY TO TELL A GOOD

CAUSTIC SODA

Compare it with a sample of Niagara Caustic Soda. If it has that clear, clean, snow-white color, if it measures up in purity and uniformity to Niagara's product, then it can't be beat. But why bother? Make Niagara Alkali your source of supply and you won't have to worry about whether the product you are using is pure and uniform. You'll know it is.

AND THE SAME GOES FOR

CAUSTIC POTASH

because Niagara is the pioneer American producer and for more than thirty years has been supplying caustic potash that meets the most exacting standards. Whatever your needs we can satisfy them promptly—in solid, flake or liquid form.

Niagara

ALKALI COMPANY

60 EAST 42ND STREET, NEW YORK, N. Y.

Associated with Electro Bleaching Gas Co.
Pioneer Manufacturer of Liquid Chlorine

COLUMBIA

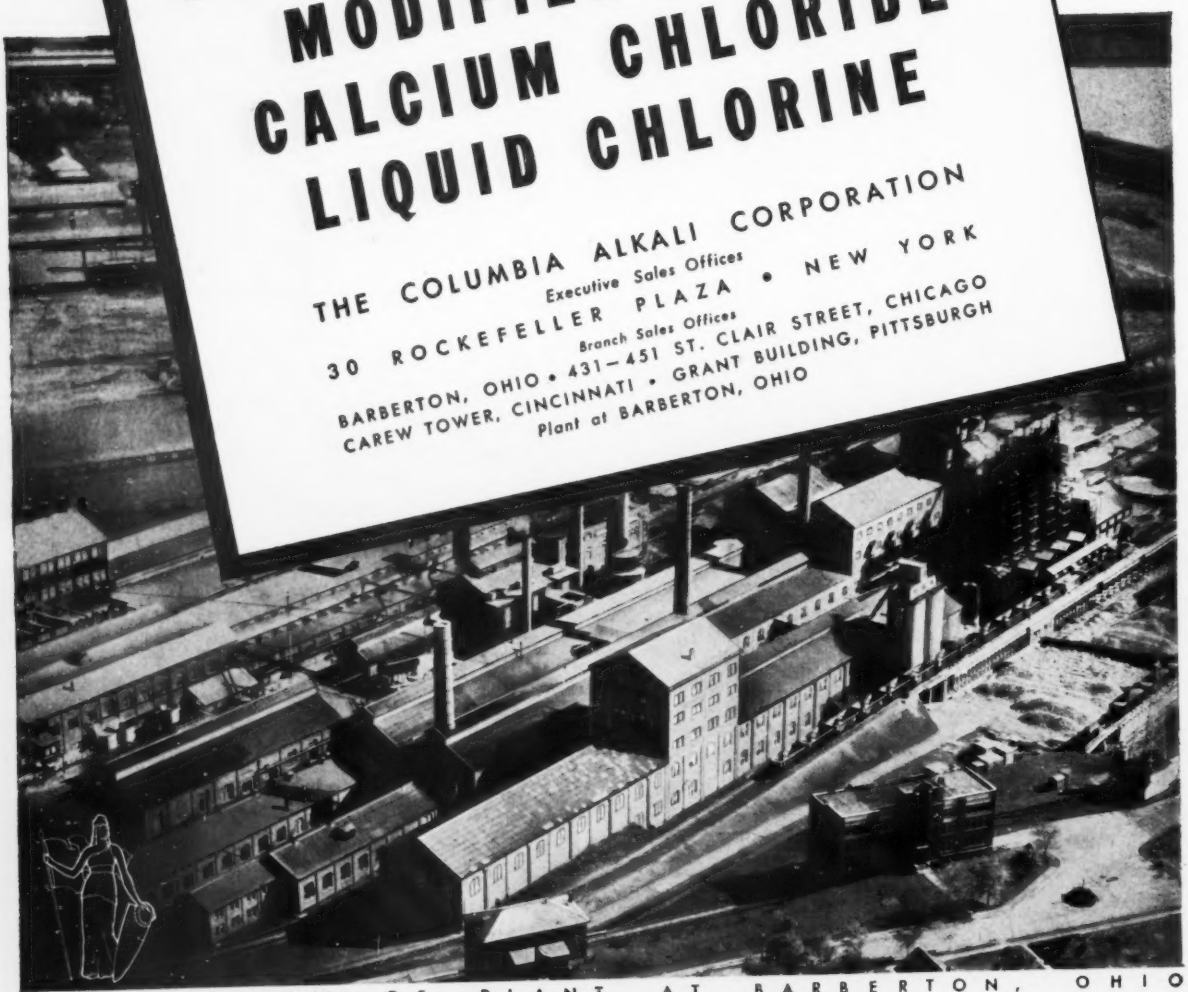
SODA ASH
CAUSTIC SODA
SODIUM BICARBONATE
MODIFIED SODAS
CALCIUM CHLORIDE
LIQUID CHLORINE

THE COLUMBIA ALKALI CORPORATION

Executive Sales Offices
30 ROCKEFELLER PLAZA • NEW YORK

Branch Sales Offices
BARBERTON, OHIO • 431—451 ST. CLAIR STREET, CHICAGO
CAREW TOWER, CINCINNATI • GRANT BUILDING, PITTSBURGH

Plant at BARBERTON, OHIO



AERIAL VIEW OF PLANT AT BARBERTON, OHIO

A Famous Package for a Famous Dog Food
SPRATT'S
SPRATT'S FIBO
SPRATT'S PATENT LTD. CHOOSES THE S&S TIGHT-WRAPPED PACKAGE
"Everything FOR THE DOG"
SPRATT'S
PATENT (AMERICA) LIMITED
NEWARK, N.J.
Stokes & Smith Co.
Summerdale, Phila., Pa.
Gentlemen:
Incidentally, your machine seems to have justified its existence in our factory in the elimination of insect infestation to a point where complaints on these packages are practically negligible.
with best wishes,
Yours Faithfully,
SPRATT'S PATENT (AMERICA) LIMITED
L. M. Buckle
General Manager
"Famed for Worth around the Earth"
FILLING • SEALING • WRAPPING MACHINERY
. . . . . AT SPEEDS TO SUIT YOUR NEEDS

S & S Tight-Wrapped Packages have solved many problems for many users.

Attractive and economical they give extra protection, are easily handled and non-sifting. Brilliantly varnished labels, even labels of glistening metal are now available for still greater protection, still finer appearance.

A sample of *your* product, mailed to Stokes & Smith Co., will bring you complete data on how S & S Tight-Wrapping may be applied to *your* own packaging problems.

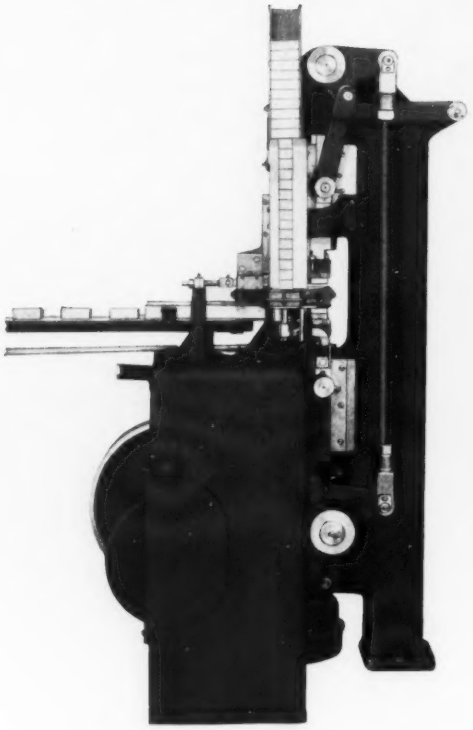
STOKES & SMITH Co

PACKAGING MACHINERY PAPER BOX MACHINERY
4915 Summerdale Ave.
Philadelphia, U. S. A.
British Office: 23, Goswell Road, London, E. C. 1

It would pay you to use

JONES TOGGLE PRESSES

THE LONGER SOAP CAKES, EITHER TOILET OR LAUNDRY, ARE UNDER PRESSURE THE BETTER THEIR FINISH.

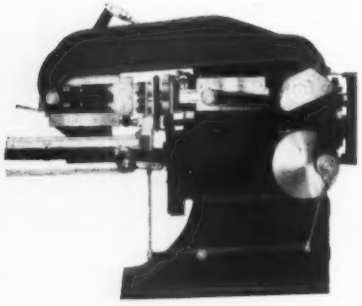


Type ET Toilet Soap Press

ALL NEW TYPES OF

JONES PRESSES

ARE TOGGLE OPERATED AND HOLD THE SOAP UNDER PRESSURE TWICE AS LONG AS EARLIER MODELS.



Type K Laundry Soap Press

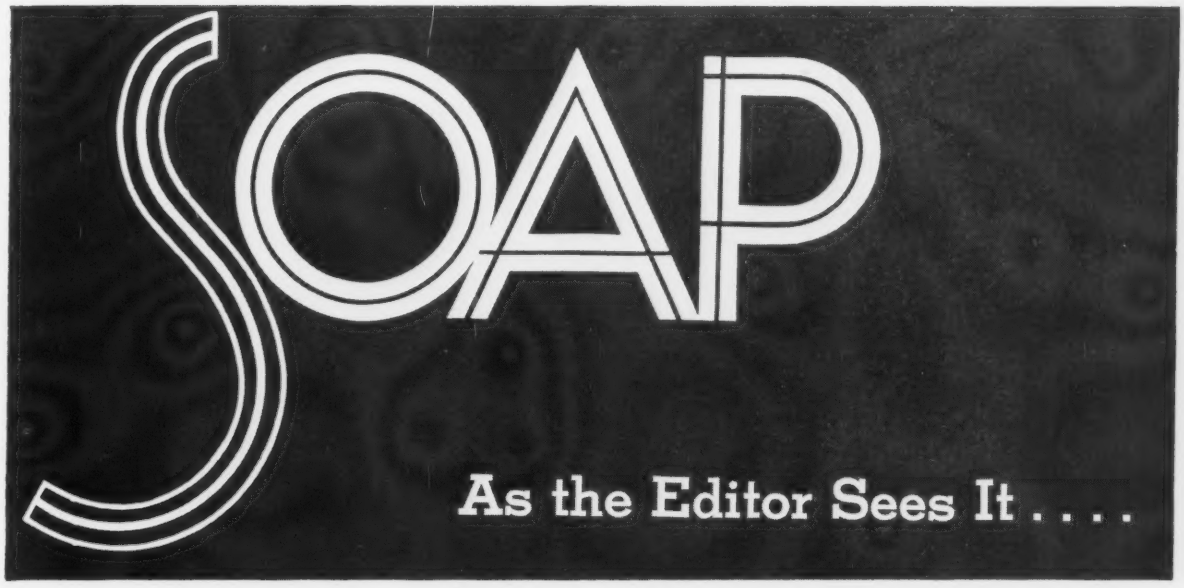
MANY SOAP MAKERS ARE REPLACING EARLIER MODELS WITH THEM BECAUSE OF THEIR FAR BETTER PRESSING, GREATER PRODUCTION, ECONOMY IN DIE WEAR AND, LAST BUT NOT LEAST, BECAUSE THEY OPERATE

WITHOUT NOISE OR VIBRATION

R. A. JONES & COMPANY, Inc.

P. O. BOX 485 CINCINNATI, OHIO

The Standardized *Constant Motion Cartoner* packages bottles, jars, tins, collapsible tubes and many other articles. It feeds, folds, and inserts direction sheets and corrugated board liners with the loads



SALES of all soaps, except liquid soaps, dropped off seven per cent in tonnage for the first half of 1936 as compared with 1935. The value of soaps, however, only declined some 2.5 per cent, showing that prices this year on the whole were about five per cent higher than in 1935. Sales of liquid soaps, on the other hand, showed a sharp increase in total sales, going up 12.5 per cent in volume and twenty-five per cent in value, amounting generally to an eleven per cent increase in prices. These are the totals released by the Association of American Soap and Glycerine Producers from its census of soap sales for the first half of 1936. Owing to the confidential nature of the census, no further breakdown of the figures by types and classes of soaps is available. The figures are stated to cover about ninety per cent of the soap production of the country which makes them for all intents and purposes representative of the trend in the industry.

The disturbing feature of these figures is the seven per cent drop in the sales of regular laundry and toilet soap products. Transcribed into pounds, this may mean that something around two-hundred million pounds less soap per year are being consumed. Alongside of this, any gain in liquid soap consumption is of small account. The great bulk of the soap sales of the country are represented in the groups which show the loss.

How much of this reduction in manufacturers' sales for the first half of 1936 may have been due to disturbances in the channels of distribution, and how much of it was really due to reduced consumption are, of course, not known. But it is well known that soapers generally are distinctly upset at the present state of affairs,—that they are worried about reduced sales and shipments. An immediate study of the situation by a committee of the soap industry might not be amiss,—or by an outside disinterested organization, if need be. The sooner the causes are unearthed, the sooner can corrective measures be applied if the causes can be corrected.

REGULATIONS covering the collection of excise taxes on various oils and fats of foreign origin under the Revenue Act of 1936, together with amendments to the regulations covering the Revenue Act of 1934, were issued the middle of September by the Treasury Department. These regulations cover in detail the manner in which these processing taxes on oils and fats are collected. Soap manufacturers who have not secured a copy of the new and revised regulations as yet, should apply to the office of their Collector of Internal Revenue. Any manufacturer, whether a soap maker or not,

who processes any oils or fats, should make himself fully familiar with the latest rules which now govern the actual and practical enforcement of the law. Lack of complete knowledge of the regulations as they affect your business is dangerous no matter from which angle it is viewed.

OLIVE oil contracts, prices, and deliveries are working themselves into a rather complicated situation as a direct result of the civil war in Spain. Absence of shipments from Spain for the past two months has tied importers in knots. With contracts for deliveries outstanding at prices in most instances far below the current market, these importers face a precarious situation. At the same time, distributors and consumers of olive oil, including some soap manufacturers, who also in turn have contracted to deliver soap or oil at prices based on their contracts with the oil importers, are likewise faced with serious losses. Some importers find it difficult or impossible to make deliveries. Others are reported delivering at the higher current prices, but refusing to do so on low-priced contracts. All in all, it is a nice tangle. Probably long after the strife in Spain is ended, we will hear of suits on olive oil contracts wending their usual snail's pace through the courts.

FOR the past decade, the chain stores of the country have been the target for all sorts of punitive legislation, federal, state, and local. Legal restrictions, and taxes upon taxes, have been heaped upon them. The Robinson-Patman Act is the latest and heaviest shot designed to cripple the chain store,—designed to force them to raise their prices generally or give up any thought of profit from their operations.

Undoubtedly the operators of chain stores are not altogether complacent in the face of the present situation. To date, they have not seemed to fight back against the mounting wave of legislation with any great effectiveness. However, we sense that the time is here when the chains are about to draw their knives and do a little cutting hither and yon on their own account,—and we do not mean price cutting. The chains have several weapons at their command which, we have a hunch, are being sharpened for use. After all, they do control the distribution of a tremendous tonnage of merchandise, and they do pull quite an oar with any number of manufacturers. On the whole, they are well-organized and amply financed to play havoc in retail channels, if in the heat of fighting back they do not count the cost to themselves. And certainly, their position has become sufficiently desperate that they must be forgetting about the cost in a fight for existence.

We wonder if manufacturers have thought of the possibility of a combination of grocery and drug chains to establish and popularize their own brands of everything from soap to pineapple,—to build, and manufacture, and advertise them in competition with established national brands —to boycott the latter completely,—to make of themselves self-contained manufacturer-to-consumer organizations. We wonder if the chains may not already find themselves driven to consideration of some such plan as this.

Harried and hampered at every turn, there would be little wonder if the chains turned about and slashed back at their tormentors. That a few innocent bystanders might be cut in the process, would be of minor importance to them. That their system of merchandise distribution may be all right or all wrong, does not matter. That they are unfair and unjust, or completely the reverse, in their competition with the independent retailer, likewise matters little. They have been pushed to the point where they are compelled to act decisively in self defense,—and if and when they do, some manufacturers may find themselves engulfed in a free-for-all which is not to their liking, or conducive of improved profits.

IN the parlance of the boxing arena, it is not good form to "lead with your chin." To the casual observer, this might seem to be what a certain large firm is doing in practically ignoring the Robinson-Patman Act. At the same time, they are very probably fully aware of what they are doing, if we may judge by past performance. The direction in which the pack is running might be wrong. Who knows?

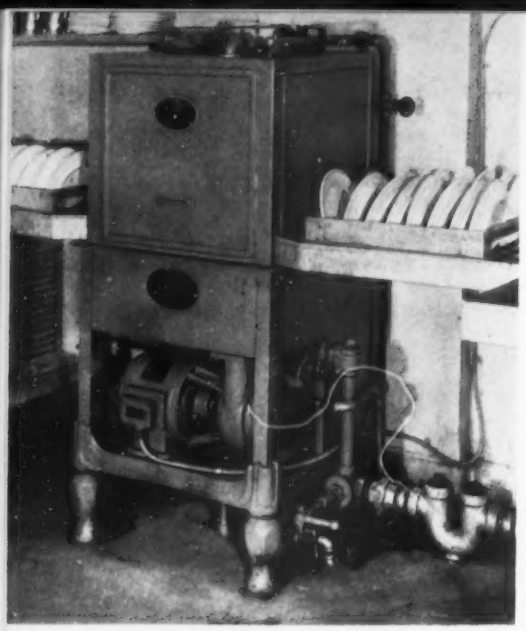
Dishwashing Preparations

By Ralph H. Auch

Chief Chemist, American Products Company

RESTAURANTS, hotels, hospitals and other institutions have long recognized dishwashing as an ever-present problem. Dishwashing is done, they have found, largely by "Three-I" (irresponsible, ignorant and indifferent) workers, in spite of the many radio, screen and operatic singers whose publicity managers insist that they started their careers washing dishes for mother. Dishwashing in the home is an enervating, constantly recurring household task that is distasteful alike to maid or mistress, mother or daughter. That the women who must perform this domestic duty are interested in a product especially designed for dishwashing has been demonstrated by a geographically wide-spread, but relatively small survey. Of course, as this writer casually mentioned in an earlier article on furniture polish, when discussing its use in dusting, certain products are offered principally for dishwashing. They are, however, primarily packaged soaps whose sponsors finally recognized the fact that the family dishes are washed 21 and on occasion 42 times for every time the family linens have their acquaintance with soap renewed in the wash machine or tub.

Just what is used in the average home for dishwashing? A recent survey indicates 30.6 percent are still using bar soap, while 67.5 percent have been won over to soap beads or flakes. The remaining 2.9 percent use miscellaneous preparations, and in hardwater areas there is an occasional user of soap powder and the even more heroic sal soda. The three aggressive advertisers of dishwashing "beads" turned up as the choice of 20.7; 12.3 and 9.2 percent of the bead or flake users. It was gratifying to note how few used the common 5-lb. carton of



The dishwashing product must be suited to the type of machine and the character of dishes to be washed. Mechanical dishwashing has brought out numerous detergent formulas for special purposes.

chip soap. Of course, a larger number may have used them earlier until they experienced untoward effects on their hands. Or again, some may have discontinued the use of such chips as the chips became increasingly insoluble as the real soap content was further reduced from 66 to 54 percent, or lower.

In commercial dishwashing machines, the use of soap is almost precluded due to the undesirable sudsing when the wash water is violently agitated. On the other hand, for domestic use the incorporation of soap is desirable because users prefer it as has been indicated by investigation.

A survey was made to determine definitely if householders wanted suds in their dishwater. Two packages of dishwashing compound were submitted to a testing group of 325 women. The first was a mixture of alkaline salts and the second the same identical mixture with a small percentage of granulated soap incorporated. Only 25.9 percent preferred the former, i.e., the one without soap, while 68.9 percent chose the latter with soap. Only 3.5 percent had no choice and a mere 1.7 percent of the testers liked neither.

There is a definite active market for a good product prepared especially for domestic dishwashing for 89.4 percent of the women are actively interested, 1.5 percent evidence a passive interest, while only 9.1 percent are disinterested or actively against it, as "a needless expense," or an "extra item in the kitchen," etc. Requisites for a good dishwashing compound are materially different than those for a satisfactory laundry aid.

There is less agitation in the dish pan than in the laundry tub, boiler or wash machine. The temperature of dishwater is ordinarily only 108-120° F., whereas that in the laundry may be as high as the boiling point. Both lack of agitation and relatively low temperature require that the dishwashing compound be very readily soluble. The hands are often in the wash tub relatively little, while they are almost constantly in the dishwater. The former task recurs but once a week, while it is a three-times-a-day proposition in the latter. So the detergent must be less harsh if not definitely "kind" to the hands. On the other hand, the soap product enjoying the largest call in the survey has a pH of 10.6, the second 9.8, and the third 9.3 in the usual concentration and at the temperature ordinarily employed. Incidentally the "usual" concentration was found to average about .34 percent, some users of course using far more and some appreciably less. The conclusion, if any, that may be drawn is that it should not be *too* mild.

The grease accumulation on fabrics especially clothing, is largely unsaponifiable, whereas on china and glass, being edible, it is almost exclusively saponifiable. The detergent then should not only have a good emulsifying power, or ability to suspend oil, grease and dirt, but may well possess a mild saponifying power. The job of removal is easier, however, as the soil in fabrics may be largely embedded, but on dishes, glasses, pots and pans, it is on the surface exclusively. But enough of the quasi-technical and theoretical considerations of which, of course, there are many more.

Foster D. Snell in a series of four articles in *Industrial & Engineering Chemistry*, (1933 and 1934), lists a number of standard "soils" used in evaluating laundry detergents, but none of these are particularly suited to dish cleaning. Schwartz and Gilmore, reporting in the same journal (September, 1934), made a "soil" for china from two pounds of lard, two pounds of tallow, and 2.65 ounces of ferric chloride. Briefly, the china was dipped at 140° F., then after washing with the respective solutions being studied, was treated with ammonium sulfide and photographed for residual "soil." The sulfide reacting with any remaining iron chloride gives a precipitate of black iron sulfide, easy to detect even in very minute quantities. For glassware they used a "soil" made up of one pound of peanut butter, one-half pound of butter, one-half pound of lard and .88 ounces of slaked lime.

An anonymous writer reporting in *Perfumery and Essential Oil Record* (October, 1934), used two grams of dried pea soup and ten mils of animal fat in petroleum ether and distributed it over the surface of the vessel, the solvent being evaporated by warming and blowing air over it. A measured volume of 0.5 percent solution of the detergent in water was placed in the vessel and agitated mechanically for 30 seconds, then poured off and the residual matter collected. The fats and non-fats were separated with solvent, dried and weighed. Thus the percentage fat and the percentage non-fatty "soil" removed was determined.

The method which this writer has used is quite homely. First, the quantity of dish water ordinarily used was determined and was found, incidentally, to run approximately 5½ to 7 quarts. Numerous samples of domestic dirty dish water were collected. The fat content ran from .059 per cent to .401 percent and the minimum was calculated to be 3.14 grams, while the maximum ran 21.18 gram per dishpan. The other "soil" varied between much greater limits, probably due to some dishes standing unwashed over night, some washers dumping dishes directly into the wash water, while others scraped them or gave them a preliminary rinse.

The various possibly suitable alkaline salts were then evaluated roughly by determining the quantity of 1 percent solution required to emulsify one c.c. of corn oil and 0.25 c.c. of 20 percent neutral potash cocoanut oil soap solution in 50 c.c. water. The reason for the presence of the soap is the fact that the survey proved beyond question that soap should be an ingredient for household use. The table below rates the salts but of course the position of the modified soda might easily be further down in the list if the ratio of bicarbonate to soda ash were higher in the given sample.

Modified Soda	Sesqui-carbonate of Soda
Trisodium Phosphate	Sodium Pyrophosphate
Metasilicate of Soda	Borax

Disodium Phosphate

Salts, conspicuous by their absence, include soda ash, which is entirely too harsh, and hexa metaphosphate which is bound up by patents.

Other considerations enter into the choice of ingredients for domestic use. For instance, the housewife or maid might leave the dirty ware soak overnight, in which case she would find her aluminum utensils badly discolored and pitted to some degree by trisodium phosphate and appreciably discolored by even sesqui-carbonate of soda.

FOR institutional use, where the dishwashing material is sold by weight, little importance attaches to the apparent density. For domestic use, a bulky product is of marked advantage saleswise. Different granulations and other physical states vary in apparent density, i.e., weight to volume, and a choice can be made that offers the greatest bulk. In the case of trisodium phosphate, it takes only about 61 pounds of flake, 56 pounds of chip, 69 pounds of "porofos" and 90 pounds "coarse globo" to bulk as large as 100 pounds of "fines."

For institutional use, a mixture of trisodium phosphate and sodium metasilicate soon becomes caked or even mushy, so the ordinary $Na_3PO_4.12H_2O$ may well be replaced by an equivalent quantity of the monohydrate $Na_3PO_4.H_2O$. The monohydrate and also the anhydrous tetrasodium pyrophosphate are less readily soluable than their hydrated salts, tending to crystalize before going into complete solution. This renders them rather unsuitable for domestic use, although entirely satisfactory for bulk products for institutional use where they are violently agitated in dishwashing equipment.

On the other hand, at the relatively high temperature used in dishwashing machines, there is some tendency for the tetra salt to revert to the ortho salt, according to one manufacturer. For domestic use, advantage may be taken of the anti-precipitating property of tetra, so it may well be incorporated in such formulations. Incidentally, the reason for this phenomenon is not definitely known, but it is believed that the magnesium and calcium of the tap water form a complex compound with tetrasodium pyrophosphate.

Referring back to the tendency of most alkaline salts to discolor and pit aluminum, the incorporation of sodium metasilicate tends to inhibit this action. The manufacturer making soap or other alkaline specialties and packing them in aluminum collapsible tubes has long since learned that even ordinary sodium silicate exerts a like inhibiting action. One writer found the minimum

A detergent suitable for use in washing glasses or dishes at high temperature is frequently not suitable for use in the home where the housewife's hands are immersed in the solution several times each day. Harshness and excess alkali must be avoided in products designed for household use.

of sodium metasilicate required to inhibit corrosion of aluminum to be 30 percent. However, this writer found only 13 percent is required in at least one formulation. Tin plate, while no longer widely used for kitchen ware, should come in for consideration nevertheless.

The soap used in dishwashing compounds may well be of low titre to facilitate ready solution. Since the dishwashing formulation is the opposite of a built soap in that it is a mixture of soap builders plus soap, there is no point in employing a filled soap. The builders may be incorporated as such and less of an unfilled soap added as such. Then too, generally the unfilled soap is more readily soluble than the same soap containing the usual fillers. Certain soaps and certain physical forms tend to clump and form soft curds at the surface of the water in the dishpan. The contemplated soap should be tried out on this score both alone and in formulations showing promise. On the other hand, theoretically at least the alkaline salt should dissolve and "break" the water before the solution of the soap is effected.

As for the proper pH of the compound in the concentration directed to be used, it is well to remember that anything more acidic than the pH of the soap used is acid to the soap solution, that is, the dishwater. If the soap products that are widely sold and used for dishwashing may be looked upon as a criterion, then a pH of 10.6 at 110° F. in the directed concentration should not be exceeded.

In fact, it may be well to use twice the directed strength in making the pH determinations because many housewives use too much, or at least more than the directed quantity. "The directions 'say' a tablespoon, so I'll use a little more. It's bound to work better."

IN development work, the dishwashing product may be looked upon as dissolved in a reservoir suspended over and dripping into the dishpan, producing additional alkalinity as it is being used up. In other words, the cleansing action should be almosts as thorough at the completion of the washing as when the task is begun. This can be accomplished by buffering so that the alkalinity is not materially reduced as neutralization proceeds.

As for the formula itself, it should be designed to fit the conditions of use. Schwartz and Gilmore in the article referred to earlier state that the following formula is 100 per cent on the "soils" they employed

Trisodium Phosphate	45
Sodium Hexa Metaphosphate	53
Sodium Hydroxide	2
to make	100

then recommend the following or the anhydrous equivalent proportions listed in the second column

	I	II
Sodium Metasilicate	40	28
Sodium Hexa Metaphosphate	40	48
Trisodium Phosphate	15	18
Sodium Hydroxide	5	6
to make	100	100

They further claim no results over 70 percent efficiency without the use of sodium hexametaphosphate. The use of this salt, however, is of course precluded due to the patent situation.

The above formulation is obviously for use in dishwashing machines. As a starting point for products designed for machine use, the following will be found satisfactory

Trisodium Phosphate	65
Anhydrous Tetrasodium Phosphate	20
Soda Ash	15
to make	100

For domestic use the following basic formula may be used as a starting point

Sodium Sesquicarbonate	35
Sodium Metasilicate	15
Tetrasodium pyrophosphate	25
Soap	25
to make	100

If, for instance, trisodium phosphate is included, the pH must be reduced by raising the sesquicarbonate figure or incorporation of some very mild alkali such as disodium phosphate or borax or both.

IT is unquestionably desirable marketwise to keep away from any suggestion of soap either in label and sales promotion copy or in physical appearance of the product. Due to the long and favorable association of ammonia with the cleansing of glassware, mirrors and windows, it may prove a desirable addition. A small percentage of ammonium chloride may be incorporated in the formula which in the presence of alkaline salts will liberate ammonia. Only sufficient to be perceptible to the nose of the user should be employed. So radical a departure is somewhat dangerous in so far as sales resistance is concerned so the advance consumer reaction should be determined and be proven definitely favorable.

Another modification particularly for the specialty manufacturer, who does not make his own soap is a metasilicate soap mixture. At present 75 per cent sodium metasilicate and 25 percent of high titre (40-42° C.) soap, as well as a 95-5 percent mixture, are available. Of course, an appreciably lower titre soap mixture would be more desirable if it could be had.

In evaluating a formula, there is no test like the use test, but the following has been found helpful. Make up the product in definite dilution in water of about the proper concentration for domestic use and transfer 50 c.c. to a 250 c.c. Erlemmeyer flask. Titrate it from a burette with 10 percent whole milk of definite lactic acid and cream content in water. The end point is the point where suds no longer form on agitation.

A convenient way to evaluate the wetting power is the following. A piece of clean plate glass which insures a plane surface is placed level. Equal volumes of about 5 drops from the same medicine dropper or pipette are dropped on the glass. Like concentrations (about what will be used in practice) of all formulae under con-

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Medicated Soaps

By Dr. E. G. Thomssen

J. R. Watkins Company

WHEN used in the field of therapeutics, soap serves mainly as an external application with or without the addition of other substances to give it medicinal properties. There are also limited uses for soaps in the field of medicine for application to mucous membranes and for internal purposes. Tooth soaps, for example, still find extensive use in certain countries, and the majority of tooth powders and tooth pastes on the market employ soap in their formulae. This is done not only because of its cleansing qualities, but because it is held to possess beneficial action on the teeth and gums during the brushing. Furthermore, it acts as a lubricant, and thereby tends to lessen brush injury to the gum and gum margins. Certain investigators have also stated that the use of soap in dentifrices has a curative effect in trench mouth and renders inactive Vincent's spirochete which causes this disease.

In other cases, soap is employed as an addition to laxatives, and also in enemas as a lubricant and internal cleansing agent. In cases of poisoning, especially by acids, soap is valuable as an emergency antidote. It furthermore finds rather wide use as an addition to pills and tablets of various composition.

As a medicinal agent by itself, soap not only possesses cleansing power, but has other properties of therapeutic value. It may be classed as a softening agent for the epidermis, as an agent for the removal of parasites from the skin, as an agent for the inhibition of certain bacterial growths, and as a dispersing agent for the allaying and limiting of inflammation and swelling of the skin and tissues.

The property of soap to remove grease from the skin plays a very important part in skin hygiene and beautification. The skin is constantly exposed to the soot and dirt present in the atmosphere. When this dirt deposits on the outer covering of the body, much of it remains fixed and is covered with the greasy secretions of the skin. In certain cases it enters the pores, where it is difficult to dislodge the deposit. Water alone could not possibly remove this greasy coating. The detergent action of soap is necessary to loosen the dirt. In doing this, it also removes obstructions in the pores of the skin, held in place by the greasy exudations, and permits the pores to function normally. Soap also removes the products of perspiration which are deposited on the skin. By its cleansing action in removing foreign matter, the functions of the skin can carry on normally. It is also probable that bacteria and fungous deposits are removed mechanically in the washing process.

In cases where an abnormal amount of grease is present on the skin, disorders of the skin may result. The action of soap in such cases plays an important therapeutic role. Certain individuals who have these skin disorders, give the appearance of their faces having been smeared with grease. In such conditions, the action of the soap, especially a soap which possesses a high grease emulsifying property and with an excess of alkali, or a liquid soap containing a high percentage of alcohol, may exert a curative action. Then again, there are cases where excessive perspiration of the hands, the feet, or the armpits requires frequent application of soap to remove the products carried to the skin surface by perspiration, and which set up irritation and chafing if not removed. Soap, having an alkaline reaction, neutralizes these waste products which are usually acid, and helps to keep the skin in a healthy condition. A further function of soap is in the shampooing of the hair, especially greasy hair. In such cases, soap is indispensable in the removal of waxy and greasy deposits.

As a softening agent for the epidermis, soap acts in two ways. It first removes the greasy and crusty outer layer on the skin, and then softens the newly exposed skin, thus putting it in good shape to take up medication. If the part of the skin to be treated had not been thoroughly washed with soap first, the medication applied in salve or liquid form could not reach the skin itself as readily, or in certain cases not at all. The effects on the skin, therefore, of soap and water prior to the application of the medicine, make it desirable to use soap in various ways in certain medicaments designed for the treatment of skin disorders.

The anti-parasitic action of soap is best illustrated in the treatment of fungous diseases of the skin. Here again the "peeling" action of the soap can be taken advantage of to attain the desired results. When the skin is infected with fungi, they are usually located in the outer layer of the skin but deep enough so that the usual surface application of the fungicides or antiseptics cannot reach them. It is, therefore, customary first to bathe the parts well with a soap of a suitable composition to peel off the outer layer of the skin. Then when the medicament is applied, it contacts the fungi and has an opportunity to exert its fungicidal action.

There is much material in the literature regarding the disinfecting, antiseptic and germicidal action of soap. Let it be pointed out, first of all, that it has been customary in the past to over-estimate these germicidal properties of soap. It is true that many surgeons prefer a mixture of soap and alcohol to cleanse the hands before operating. In this case, the mechanical action of the

brushing aids in rendering the hands surgically clean. This action tends to remove bacteria on the surface of the skin. This does not mean, however, that bacteria which may have penetrated the skin are removed. For this reason, and in order to add to the germicidal value of soap, it has been attempted to add substances which have the most suitable germicidal action. Unfortunately, many of these substances are not stable in the presence of soap and suffer decomposition, thereby adding no disinfecting value whatsoever to the soap. There are however, certain compounds, which have been shown to be effective. Even through the use of soaps containing these substances, it should be pointed out that they cannot be effective against bacteria in the tissues because of the inability to reach them. Another important feature about the use of germicidal soaps is the concentration at which they are used. Care should be taken to direct that the parts to be treated are thoroughly lathered for a sufficient length of time in order to secure the benefit of any germicidal action.

Soaps possessing disinfecting properties are of value, however, in cases where skin diseases cause the discharge of pus. In cases of suppuration, bacteria are spread over healthy parts of the skin and are apt to develop and spread the disorder to other parts of the body unless they are removed, preferably with a disinfecting soap. Frequent bathing with an antiseptic soap and water appears to be the most convenient way of handling this situation.

Soap by itself serves as a dispersing agent in certain preparations. It is frequently used in soap plasters for local application, to prevent the spread of inflammation of the skin and tissues. Another well-known use in this category is as a constituent of liniments for external applications to sprains, strains, muscular rheumatism and other aches. Quite large quantities are used for this purpose.

In the discussion up to this point, the therapeutic properties of soap itself have been mainly considered. A true medicated soap, however, is one in which a medicament is combined with soap in order to give medicinal properties to the finished soap.

Medicated soaps may be sold as liquid soaps, paste soaps, milled soaps or cold made soaps. By far the largest number appear as milled soaps because it is more convenient to incorporate the medicaments. There is no particular difficulty in making the soap base, and it is quite customary to use tallow soap chips for medicated milled soaps. In the case of liquid soaps, the ordinary coconut oil liquid soap is used. For paste soaps, bases on the order of shaving cream which are superfatted lend themselves well to the addition of medicinal ingredients. These are, however, quite expensive and paste soap finds only limited use in this field. In merchandising medicated soaps, it has become customary to refer to them by the name of the medicament such as sulfur soap, mercuric iodide soap, etc.

As we have already indicated, it is sometimes advisable to use soaps with a comparatively high alkali content for the treatment of certain diseases of the skin where there is excessive oiliness. These soaps find a limited use and are, therefore, not very generally used. Various alkalies are used as additions, but the most popular soap of this kind is one which contains 4 percent of sodium and potassium carbonate. In others, additions as high as 5 percent of trisodium phosphate are used. In still other cases, triethanolamine, which has strong basic properties, has been added to the soap in order to increase its alkalinity.

In making a medicated soap which contains added acid, it is customary to add one of the weaker solid acids in powdered form to a milled soap. The more common acids used are benzoic acid, boric acid, salicylic acid and its esters, especially salol. These acids, when added to a milled soap in small percentage, will not readily decompose the soap, and, therefore, make a stable product. These cannot be used in liquid or cream soaps. From 1 percent to 5 percent are added.

Carbolic Soaps

THE terms "carbolized," "carbolic" or "carbolated" when applied to soap indicate the presence of phenols. Because a soap is termed a "carbolic soap" does not necessarily mean that it contains carbolic acid. We, therefore, define a carbolic soap as one that contains at least 3 percent phenol or the higher homologues of phenol calculated as cresol. Redistilled commercial cresylic acids (tar acids) may be used in a soap termed "carbolic" provided they do not increase the coal-tar hydro-carbon content of the soap to more than 0.5 percent.

By defining a carbolic soap in this manner, it is possible for a soap manufacturer to take advantage of the fact that the higher homologues of phenol like the cresols and xylenols are more desirable additions than carbolic acid. These phenols are less poisonous, possess a higher phenol coefficient or disinfectant value, and are more stable in soap than carbolic acid itself. It is for this reason that they are most generally used. Carbolic soaps are sold widely in not only this country, but other countries, especially in the British Isles and Canada. The phenols may be added to liquid, solid or cream soaps and impart disinfecting value to the soap when used correctly. It is most satisfactory in the case of a milled soap to add the coloring matter and phenol, with perfume if desired, in the amalagamator. Cold-made soaps and floating soaps are also carbolized. The addition of the phenols has a tendency to soften the soap and for this reason it is desirable to use a higher titre stock for milled or cold-made soaps. Other phenolic products like thymol and resorcinol are also added to soaps but these are not sold in any volume.

Formaldehyde soaps have not become very popular due to the fact that the addition of this chemical to soap does not give a stable product. To overcome this deficiency various compounds of formaldehyde have

been put on the market from time to time as soap additions to produce a suitable medicated soap. On the American market, particularly, there is no soap of this kind which has found favor either with the public or the medical profession.

Mercury Soaps

DUE to the fact that mercury salts possess germicidal power, it is only natural that they should be used in soaps to add germicidal value. Formerly mercuric chloride or bichloride of mercury was added to soap, but it was soon discovered that this salt, while possessinng disinfecting value, is decomposed by the soap base. Bichloride of mercury soaps turn grayish and quickly lose their germicidal value.

Other mercury salts have, therefore, replaced the use of the bichloride to make mercury soaps. One salt which is being used with some success is mercury oxycyanide. This salt has three times the germicidal strength of bichloride of mercury, and it is stated that one part of mercury oxycyanide to 1500 parts of soap is an effective disinfecting soap. In drawing this conclusion, it is assumed that in washing the hands the cake soap is diluted in water about one part to six.

The most widely sold mercury soaps on the market are the mercuric iodide soaps. These soaps are usually marketed as a blue -colored milled soap as a flat, square cake. The content of mercuric iodide is either 1 percent or 5 percent. They have enjoyed some popularity with the medical profession and are quite extensively used.

To make mercuric iodide soap, it is necessary first to dissolve the red mercuric iodide in a mixture of potassiumiodide and water. To do this advantageously, 50 parts of mercuric iodide, 37½ parts of potassium iodide and 25 parts of hot water are most generally used. The potassium iodide is dissolved in the water and the mercuric iodide is then added to this solution. The mass is stirred until dissolved and then strained. This solution of mercuric iodide is added in the amalgamator together with color and perfume for the manufacture of a milled soap. It may also be used in the crutcher in cold-made soaps.

Peroxide Soaps

IT is doubtful whether peroxide soaps contain any appreciable percentage of hydrogen peroxide when they reach the user, even though these soaps still have a popular appeal when termed "peroxide soaps." The usual additions to soaps of this kind are calcium peroxide, zinc peroxide, magnesium peroxide and sodium perborate. These "per" salts are added to the amalgamator, and in the presence of moisture, form hydrogen peroxide. This breaks down in turn to liberate free oxygen, which bleaches the soap white and makes an attractive bar.

Sulfur Soaps

SINCE sulfur is used quite extensively in ointments for skin troubles, it is only natural that it should also be used in medicinal soaps. The most common addition to soap base for sulfur soap is flour and flowers of sulfur. These soaps are also generally colored yellow and contain from 3 percent to 10 percent sulfur.

More recently, in the destructive distillation of certain coal, and in the recovery and refining of coal tar, a colloidal sulfur in liquid form has made its appearance for use in producing sulfur soaps. Sulfur in this form is held to be more active and when properly presented offers more of a talking point for skin troubles for sulfur soap than is the case with the ordinary forms of sulfur.

Animal Soaps

VARIOUS medicated soaps specifically for use on dogs, horses, and farm animals are on the market. These fall into several of the classes of soaps designed for humans, especially in the tar and carbolated varieties, and are likewise used chiefly as part of the treatment of certain skin diseases. Some of them are combination medicated and insecticidal soaps. Then there are the strictly insecticidal soaps, many of which have come on the market during the past few years. These are in bar, liquid, and powdered form. They usually contain extractives of pyrethrum or derris, and are recommended chiefly for killing fleas on dogs. The powdered items may contain pyrethrum or derris powder mixed with powdered soap.

In all these products, however, the pyrethrins of the pyrethrum and the rotenone of the derris root tend to break down under the action of the alkali present in the soap. This, of course, may destroy the insecticidal properties which these soaps might have had when newly manufactured. Where insecticide claims are made for them on the label, there is danger of running into difficulties with the Food and Drug Administration if they do not fulfill these claims when used as directed. Where insect killing power is claimed, they come under the Insecticide Act of 1910, the same as any insecticide product.

Superfatted Soaps

SUPERFATTED soaps may be said to be on the border line between beauty soaps and medicated soaps. There is no questioning the fact that superfatted soaps are milder than those which contain an excess of alkali. The superfatting of soaps may be carried on in one of two ways. In the manufacture of certain soap preparations, it is more advantageous to superfat soaps by the addition of a mineral or other acid so as to set free a specified proportion of free fatty acids. This method is not extensively used, however.

The second method is to add the superfatting agent to the soap base in the mill or in the mixer. The more common superfatting agents used are olive oil, coconut oil, lanolin, waxes like beeswax, China wax or spermaceti. Other additions, while they are not true fatty or waxy bodies, consist of cholesterin, lecthin, and casein. In adding casein, it is first put into solution by the

addition of a salt or acid in the usual manner. Casein is amphotheric in nature, that is to say it acts either in an acid or basic capacity, neutralizing either acid or alkali.

The amount of superfatting agent to be added to a soap depends upon the composition of the soap desired, its appearance and the cost of the superfatting agent. From 0.5 percent to 5 percent or more may be used. Superfatted soaps in general do not lather as well as neutral or slightly alkaline soaps. Their name is usually determined by the superfatting agent which is added, although in many cases they are given names which indicate special properties. They find particular use by people with very sensitive or excessively dry skins.

Tar Soaps

TAR soap may be made with tars derived from the destructive distillation of coal or wood. Coal tars include first those containing acids and which are soluble in alkalies like phenols, inorganic acids; second, those free from acids, that is compounds from which the quinoline and pyridine may be extracted with mineral acid leaving behind a residue of hydrocarbons like benzol, napthalene, anthracene, phenanthrene and their homologs. These hydrocarbons can be obtained in the pure state by their further distillation and used directly in soap. Finally there is the tar itself which is the residue remaining in the still.

In the case of wood tar, a product which contains high-boiling hydrocarbons, phenols, phenol ethers, various terpenes, formic, acetic and racemic acid, is obtained. While it has been attempted to add the crude coal tar or wood tar directly to soap, the resulting product is not suitable for general use.

It so happens, however, that by the destructive distillation of pine wood tar, a special soap-maker's grade of pine tar oil of complex composition is obtained. In re-distilling this product, a limpid, pleasant smelling product is secured, which is really very acceptable when added to either cold-made, milled or liquid soaps. Pine tar soaps have been popular for some years, being used particularly for shampooing the hair. The usual addition of pine tar is about 5 percent and the soaps are colored dark brown or black.

It is well to bear in mind that under the Pure Food and Drug Laws, soaps do not fall within the scope of the law until special properties through medication or germicidal value are claimed for them on the wrapper. They do fall under the scope of the Pure Food and Drug Act when any claims for curing specific skin diseases, or of disinfecting value are made. Such claims are closely scrutinized by the Food and Drug Administration which enforces this law. The same is true of insecticide claims, as noted, under the Insecticide Act of 1910.

There is undoubtedly a larger market for medicated soaps than the quantities now sold. If properly presented and based upon claims which may be scientifically confirmed, medicated soaps should increase in sales volume.

Dishwashing Preparations

(*From Page 28*)

sideration may be tested for their wetting power. A more accurate evaluation may be made by placing a sheet of cross section paper under the glass and averaging the results of several determinations.

Determine the pH of the solution and the pH of the solution twice as concentrated and also half as strong at 110° F., this being about the average temperature of household dishwater.

AGAIN a few comments on packaging are made, not because they have a real place in this discussion but to compensate for the labor that has gone before. We must indulge our quips! Some formulations tend to cake and others to attack the carton board, so it is well to age test any contemplated formula for definite data on these points.

The alkaline salt may adversely affect certain inks, so this point may also well be checked. The weight to volume is high compared to the average soap flakes, so the proper-size carton should be chosen with care. It will be a disappointment in size to the sales department in any event.

The smaller size should be more than offset by the comparative economy of the product, but the user must be educated to it so the economy claims should be modest. She was wasteful of soap chips, flakes and beads when they were first introduced. Fine soap flakes made primarily for fine laundering and made by one of the largest soap manufacturers goes into ecstacies in its carton copy over their use for dishes. It is a 5 oz. carton and the claim is made that it will last six weeks. Now six weeks is 126 dishwashings, so the recommended consumption is 1/25 ounce or about a gram per washing. That will make about a .018 percent soap solution or about 1/20 of good practice. Furthermore, it is an unfilled flake so in hard water areas its position is even worse.

So much for economy claims. As for use claims—the testing group found all manner of uses for a product of this type from the bath tub to windows and from the floor to the laundry. Relevant uses appear good, others questionable on the carton and in sales promition. Plausible claims then include scouring the sink, soaking badly burned pots and pans, cleaning the refrigerator, removing brown stains from the coffee pot and kitchen range and boiling the tea towels.

The claim that drying of the dishes is no longer necessary has become quite general. This appears dangerous for two reasons. In the first place, in hard water areas the rinse water is liable to react with the residual detergent solution to leave hardness spots. In the second place, if the rinsing is not thorough, drops of the solution will form very concentrated solutions just before complete drying and etching of glassand injury to china decorations are possible if not probable.

Liquid Soap Dispensers

Prevention of leakage, theft, waste,—a brief study of the most recent one hundred U. S. patents issued since 1920.

(Part III)

By Dr. Joseph Rossman

THIS is the third of a series of three articles on patented features of liquid soap dispensers. In patents issued for improvements in the details of construction of soap dispensers, much attention has been given to the design of the valve structures in order to prevent leakage which is a common defect. Tamper proof dispensers to prevent mischievous persons draining too much of the soap solution or putting the dispenser out of order by rough handling, have been frequent subject of patents. Some proposals which have been made for the construction of liquid soap dispensers, have been summarized here in the most recent hundred patents which have been granted by the United States.

59. BENCE, 1,719,386, July 2, 1929. The object of the invention is to provide a medicine cabinet wherein a compartment for liquid soap is located at the lower end thereof with a filling opening for the soap compartment located within the cabinet with the discharge spout for the soap compartment extending outwardly of the front wall of the cabinet and equipped with an ordinary tensioned plunger pump for the automatic discharge of the liquid soap.

61. HOLMES, 1,720,044, July 9, 1929. A liquid dispenser having a casing with inlet and outlet ports, a reciprocable stem slidable within the casing for covering and uncovering the inlet port, the stem having a bypass port in the side, and a ring piston slidably mounted on the stem and slidable relatively to the casing and stem for preventing the flow of liquid through the bypass port when the stem uncovers the inlet port and for permitting the flow of liquid through the bypass port when the stem covers the inlet port.

62. LURCOTT, 1,726,402, August 27, 1929. A valve for dispensing quantities of liquid soap comprising a barrel adapted to be attached to a supply pipe, a plunger arranged for movement in the opposite end of the barrel, the plunger having an outlet, a partition extending transversely of the barrel, said partition having an inlet passage therein in communication with a chamber defined by the partition, side wall of the barrel and the inner end of the plunger, said plunger having a passage therein in communication with said chamber and said outlet, a control assemblage comprising a pair of valve members for controlling the inlet passage in the partition, and a valve member for controlling the passage in the plunger; means acting on the plunger for automatically effecting its return movement to a normal position upon removal of pressure.

63. STEPHENS, 1,729,903, October 1, 1929. In a dispensing device a cylinder having at one end a surrounding flange, a cap constructed to embrace the flange and thereby hold the cylinder on the container, a gasket interposed between the cap and the flange and extending radially inward from the wall of the cylinder thereby forming a head for the cylinder the head and the cap being provided with aligned openings constituting a discharge port for the cylinder, and a piston working in the cylinder and controlling the entrance and discharge of fluid to and from the cylinder.

64. ROSE, 1,730,436, October 8, 1929. A closure-valve having a rubber body member, having a practically straight longitudinal conduit therethrough, the conduit being open at one end of the body and having a normally closed opening at the extreme other end of the body, the lower portion of the conduit being of smaller diameter than the remainder of the conduit, the body having a recess in the side and an extended lip to the body the upward movement of which will insert the lip in the side recess and open the closed end of the body conduit allowing the gravitational passage of a liquid therethrough and outwardly of the bottom of the body.

65. KOOPERSTEIN, 1,735,465, November 12, 1929. In liquid soap dispensing apparatus a valve casing formed with an annular flanged seat provided with soap apertures and with a bowl having an upper neck opening adapted to be closed by a filler cap and a lower relatively shallow neck, an annular retaining cup cemented upon the last

named neck and having a soap aperture adapted to lie in register with the aperture of the seat and provided with a screw aperture, and holding screw for securing

Aug. 18, 1931. J. F. PALMER 1,819,382

DISPENSER

Filed June 11, 1928 2 Sheets-Sheet 1

Fig. 1

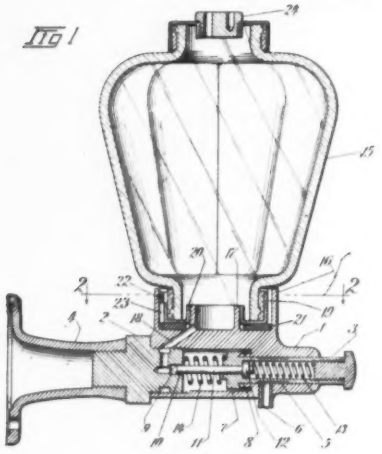
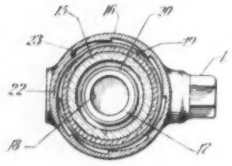


Fig. 2



the retaining cup to the seat, the screw being in vertical alignment with the filler neck opening.

66. Weinberg, 1,762,901, June 10, 1930. A liquid soap dispenser comprising a wall bracket as carrier, vessel adapted to be removably inserted in the bracket, a charging and air tube at the top end of the vessel, a discharge in the bottom of the vessel, an inclined discharge tube screwed on the discharge, a vertical tubular valve case integral with the discharge tube, a valve cone in the lower end of the valve case, a valve rod extending upwardly from the valve cone through the top of the valve case, a spring on the valve rod outside the case maintaining the valve in the closing position, and a piston keyed on the valve rod above the discharge opening of the inclined tube adapted to shut-off the tubular valve case from the discharge tube when the valve is being depressed so that only the quantity of liquid soap between the piston and the lower end of the valve casing is delivered.

67. Robinson, 1,764,525, June 17, 1930. In a liquid dispensing device for use on wash basins in barber shops, the combination with a standard having a head connected to the upper end thereof by a reduced neck, a liquid dispensing container, and a clamp carried by the bottom of the container for detachable connection with the standard, the clamp including a laterally extending rigid arm having a slotted free end for receiving the neck of the standard, and a laterally extending spring arm disposed above the rigid arm and provided with a socket to receive the head of the standard.

68. Woywot, 1,772,061, August 5, 1930. A dispensing device comprising a chambered body provided with an inlet and an outlet port, a piston in the body movable relatively to both of the ports and adapted to normally close one of them, the piston having two longitudinal channels extending inward from the face of the piston, a valve member carried slidably in one of the channels and adapted to close the other of the ports, the other channel forming unrestricted communication between the chambered body and outlet port on inward movement of the piston.

69. Hesselblad, 1,774,438, August 26, 1930. A device for dispensing liquid soap in measured quantities comprising a tiltable receptacle having a neck and a mouth at the upper part thereof, a collar anchored to the neck, a cap engaged with the collar, a valve chamber carried centrally of the cap and suspended within the receptacle and provided with a longitudinal slot and also having a soap outlet at the top, a valve member in the chamber and means adjustably mounted in the cap for frictionally engaging the outer surface of the collar whereby to anchor the cap to the collar and to regulate the position of the slot.

Jan. 30, 1934. N. S. HILLYARD 1,945,111

NURSERY SOAP DISPENSER

Filed Feb. 15, 1932

Fig. 1. Fig. 2.

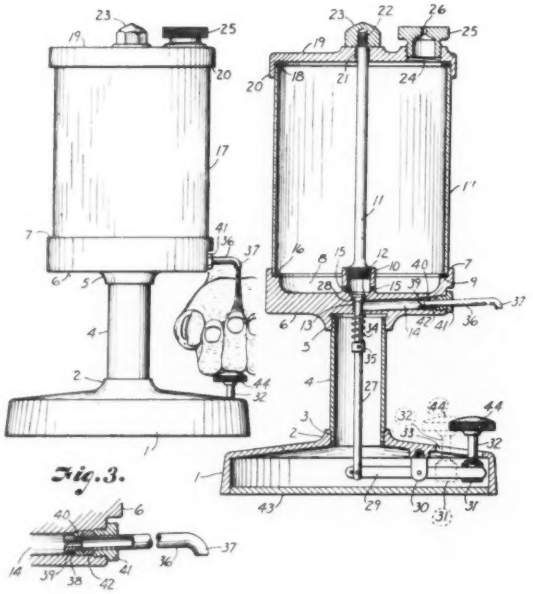
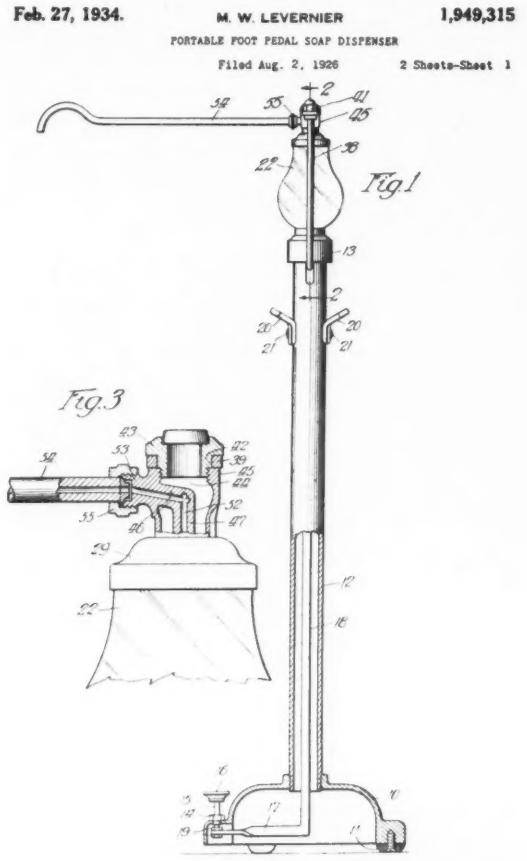


Fig. 3.

70. Packwood, 1,779,914, October 28, 1930. A soap dispenser comprising a receptacle suspended on pivotal bearings, the pivotal axis of the bearings being so dis-

posed above the center of gravity when the receptacle is full that the receptacle will take an upright position, the shape of the receptacle and position of the axis being such that when the receptacle is empty, the center



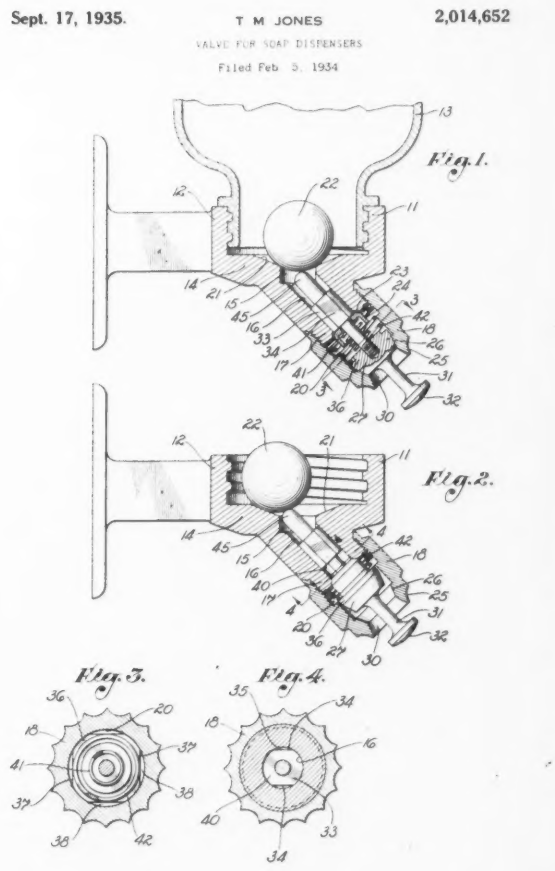
of gravity will be shifted so that the container will tip.

71. KOOPERSTEIN, 1,789,338, January 20, 1931. In liquid soap dispensing apparatus, a faucet casing formed as a cast member having a longitudinally extending bore, a laterally offset faucet neck and a depending externally threaded tubular extension, an operating rod extending through said bore and projecting below the extension, the rod lying parallel with a second bore formed in the casing and extending longitudinally of the tubular extension and communicating with a discharge bore formed in the faucet neck portion of the casing, a valve casing, a tubular member connecting the valve and the depending tubular section of the first mentioned casing, a pump mechanism adapted to be operated by the rod and in register therewith, a tube detachably connecting a discharge passageway formed in the valve casing and the second longitudinal bore formed in the faucet casing extension, a plug threaded in the upper end of the first named longitudinal bore and a plunger carried by the plug and adapted to operatively engage the rod.

72. SORENY, 1,792,513, February 17, 1931. In a liquid soap dispensing device, an elongated flat container, a discharge pipe extending from one end of the container to a position above the center thereof and having a downwardly turned spout, the container comprising manually compressible means adapted to force soap from the container through the discharge pipe.

73. SEIDEL, 1,794,484, March 3, 1931. A dispensing valve for liquid soap consists of a cylinder having a discharge nozzle leading therefrom, a plunger reciprocating in said cylinder, plunger actuating means, a container for liquid having a valve controlled port through which liquid is discharged into the cylinder, means operated by the plunger for controlling the opening from the cylinder to the discharge nozzle, and means carried by the plunger and aligned with said valve controlled port for opening the port, when the opening to the discharge nozzle is uncovered, whereby a continuous passage is thereby afforded between the container and discharge nozzle.

74. PALMER, 1,819,381, August 18, 1931. A liquid dispensing faucet to which liquid under pressure is supplied, comprising a casing having a liquid receiving chamber therein, an inlet and an outlet for the receiving



chamber, an inlet check valve adapted when seated to prevent discharge of liquid from the receiving chamber through the inlet, a second inlet valve adapted under pressure of the liquid supplied to the faucet to close the inlet, an outlet check valve and a piston within the

receiving chamber controlling the opening and closing of the valves, a charge of liquid being admitted through the inlet to the receiving chamber by the outward movement of the piston and discharged therefrom by the inward movement of the piston.

75. PALMER, 1,819,382, August 18, 1931. A liquid dispenser comprising a glass receptacle for liquid, a faucet having an inlet and a discharge outlet, an externally threaded nipple arranged on the faucet in communication with the inlet and opening into the receptacle, a socket arranged on the faucet around the nipple and having notches in the side wall thereof, a ferrule carried by the receptacle and threaded on said nipple, a gasket arranged in the socket to be compressed by the ferrule and form a tight joint between said ferrule and the socket, and a pawl struck out from the upper edge of the ferrule and engaging the notches to prevent said ferrule from being loosened in the socket.

76. GORLICK, 1,838,140, December 29, 1931. A liquid soap dispensing apparatus, comprising a valve body having an inlet and an outlet, said valve body being provided with a compression chamber, a plunger member operable within the compression chamber, passageways within the valve body connecting the inlet with the compression chamber, and the outlet with the compression chamber, the two passageways uniting to form one passageway at a point near the compression chamber, and means slidable at this common point and adapted to keep only one passageway open at a time.

77. BOBRICK, 1,844,557, February 9, 1932. A liquid soap dispenser having a receptacle, an attaching member mounted on the back thereof and attached to the back at one end, a supporting member, screws extended from the supporting member, the attaching member having slots for embracing the heads of the screws, and means extending through the receptacle and engaging the free end of the attaching member for locking the attaching member on said screws, the free end of the attaching member having a projection formed thereon for engagement with and adapted to prevent the rotation of the last mentioned means.

78. WESTWOOD, 1,848,758, March 8, 1932. A device for ejecting a predetermined quantity of liquid soap, comprising a container consisting of a body portion and a lid portion; pumping mechanism arranged internally of the body portion, the pumping mechanism comprising a hollow head, a communicating hollow piston fixed thereon, a cylinder working over the piston, ball valves in the piston and the cylinder and a return spring inside said cylinder; an operating lever fulerumed on the head and projecting through the lid; a rod connecting the inner end of the lever and the cylinder; a discharge pipe projecting downwardly from the head through the bottom of the container; a tube secured to the container and surrounding the discharge pipe; a nozzle on the outer end of the pipe and a non-return valve within the nozzle which normally closes the end of the discharge pipe.

79. THOMPSON and KIRKWOOD, 1,866,237, July 5, 1932. A dispensing apparatus comprising a container having an air vent, a cylinder in the container having an inlet establishing communication between its lower portion and the container and having an outlet at its lower end provided with a normally closed valve, a hollow plunger in the cylinder operable over the inlet and a spring by which said plunger is normally held clear of the inlet and adapted to provide an air cushion, plunger operating means, and a removable cap closing the upper end of the cylinder and by which the plunger operating means is guided, the cylinder also having an opening above the plunger to enable the container to be charged through the cylinder when the cap is removed.

80. PALMER, 1,880,271, October 4, 1932. A dispensing faucet, comprising a casing provided with a receiving chamber having a supply inlet and a discharge outlet, a plunger slidable into the receiving chamber to discharge liquid therefrom through the discharge outlet, a lift valve carried by the plunger, a seal formed between the valve and its seat by an annular flange having an angular edge, and an annular gasket arranged in a groove having inner and outer peripheral walls to retain the gasket from radial distortion.

81. KOPPELMAN and SEIDEL, 1,884,750, October 25, 1932. In a liquid dispenser, the combination with a supply pipe of a body connected therewith having a chamber and a discharge port, a plunger movable within the chamber to open and close the discharge port, a second body within the first having a central bore communicating with inlet and outlet ports at opposite ends thereof, a valve unit mounted in the bore of the second body and adapted to close either the inlet or outlet ports, and means on the plunger for moving the valve unit to close the inlet port before the plunger opens the discharge port.

82. BOBRICK, 1,885,979, November 1, 1932. A dispensing device comprising a housing, a dispenser rotatably mounted therein having a spindle extended from the housing, a clutch member on the spindle, an operating member loosely mounted on the spindle and having a clutch member fixed thereto cooperating with the first mentioned clutch member, the operating member having an axial cavity embracing the spindle and the clutch member thereon, means for closing the cavity in the operating member against leakage of the lubricant to be held in the cavity, and means for holding the clutch members in engagement.

83. McDOW, 1,886,288, November 1, 1932. A dispensing device consisting of a vessel adapted to be secured to a perpendicular supporting surface, means controlling the discharge from the vessel, a fluid supply container adapted to seat upon the vessel and having a discharge spout adapted to be sealed by the fluid in the vessel, means also seated on the vessel and enclosing the container and open at the side facing the supporting surface and means for detachably securing the cover to the supporting surface.

84. SMITH, 1,911,474, May 30, 1933. A dispensing

(*Turn to Page* 109)

So What of Gardenia?

When a toilet soap bears the word "gardenia" stamped on its face, should it really smell like gardenia?

WHETHER or not gardenia perfume, in toilet soap or in something else, should smell like gardenia is a burning question at the present time among perfuming material suppliers. Judging from what can be smelled in soaps, creams, and the like, gardenia perfumes do not smell like the gardenia flower, because if they do, then there must be seventeen and a fraction different kinds of gardenia flowers, all with distinctly different odors. In fact, the only reason why it is suspected that certain toilet soaps are perfumed with a gardenia odor, is because these soaps bear the word "gardenia" stamped on the cake or printed on the wrapper. Rather friendly of the soap makers in question to avoid embarrassment for the purchaser in such a frank and honest fashion.

With the present vogue of gardenia toilet soaps, it is interesting to note that a well-known perfuming materials house raises the question, "Should a gardenia perfume smell like gardenia? And concludes that every person has a different idea of what gardenia ought to smell like, and that, after all, the public taste must be catered to, and therefore gardenia is what people like irrespective of the odor of the flower. Consequently, it is perhaps a very good idea for the soap maker to let no doubt remain in the mind of the user of his gardenia soap as to the odor by stating this fact prominently on the label.

Even though the ultimate consumer may be puzzled by several gardenia odors which have little, if any resemblance to each other, soapers are reminded that this freedom with gardenia is not new to the art of the perfumer, and is something akin to poetic license. In fact, the case is recalled of a perfumer for a supply house who told a rather prominent purchaser over five years ago that if he intended to put out a product with the true odor of gardenia flowers, he was slightly cracked inasmuch as the genuine gardenia odor in any form except as it is smelled on the flower, is distinctly unpleasant to the majority of people. But, after all is said and done, maybe gardenia is not a whole lot different from some of the toilet soaps which bear the printed identifications of lavender, rose, geranium, and other flowers. Gardenia just happens to be "on the spot" at the moment.

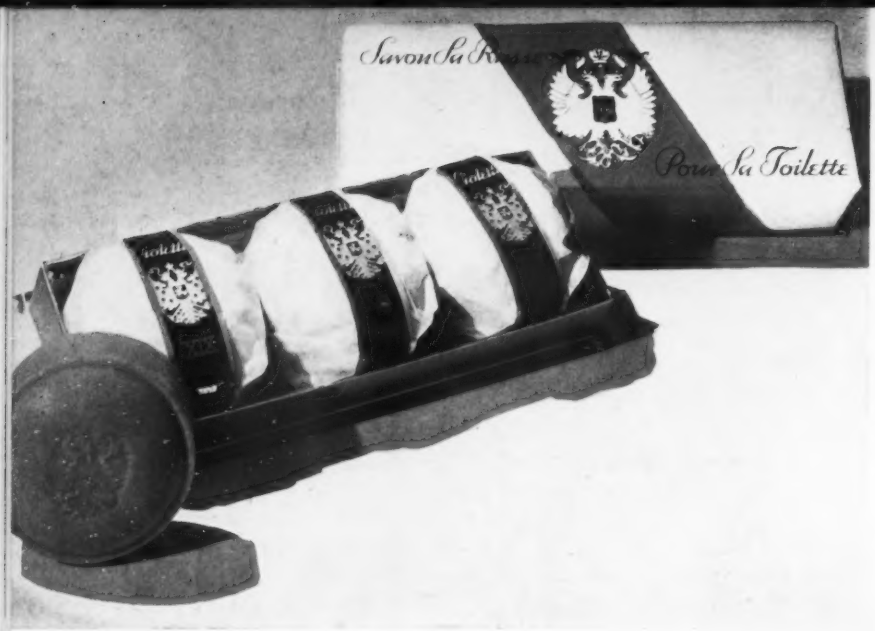
The gardenia once upon a time was a rare and exclusive bloom. A perfumer who should know, states that gardenia won its original popularity some years ago because it was uncommon and at the same time, uncommonly high priced. A corsage of true gardenias in the old days took the better part of a ten-dollar bill—sometimes more—to pay the florist. Because of their high price, they were exclusive and were much in demand among those who would impress their fellow men or women that they,—or somebody who cared to the extent of ten dollars,—had the wherewithal to purchase such a high-priced bloom. So it came about that, like the orchid, the gardenia stood for all that was exclusive, high-priced, and generally uppish. Gardenia perfumes followed in the footsteps of the exclusively popular flower,—and after the perfume, came powders, soaps, and the like. Gardenia gradually worked its way down the price scale of perfumes and soaps, as always happens when anything becomes too popular, and today, gardenia soaps are as numerous as fleas on a pup.

And during this same period, from the exclusive flower shops, a new form of gardenia found its way to the peddlers on the streets. A hybrid of the jasmin flower soon came to be sold on street corners of the large cities for a dime, sometimes fifteen cents or a quarter where the traffic would bear it, but generally for a dime. This hybrid, although not the original gardenia, was called gardenia and is now generally accepted by the American public as the true gardenia flower. So, even the original flower itself has followed the perfumes and soaps down the ladder of price and fortune.

The perfumer who dotes on things unusual and exclusive, sees gardenia gone to the dogs. For him, its death knell has already been sounded, and he sees a not too decent burial just over the horizon. Its very popularity has killed it, he holds. There are too many gardenias of all kinds. Every vestige of exclusiveness has been lost in the scramble as one gardenia soap and what not after another has come to market to be gobbled up and taken to its bosom and its bath by the public. The arrival of gardenia in five-cent toilet soaps was the crowning blow to him who could not forget that gardenia essence was once twenty-two dollars per ounce.

And so they have read the death warrant of gardenia. It is finished because it has committed the unpardonable sin of becoming too popular, too common. And in the meantime, the perfumers wrangle over just what a gardenia should or should not smell like,—and the soap mills continue to grind out gardenia soaps in profusion, and they continue to sell. So what of gardenia? What?

New Products



The new Savon la Russe,—a deluxe toilet soap recently put on the market by the Hewitt Soap Company of Dayton. Box and wrapper design in brilliant red and black, bearing the old Russian Empire coat of arms. White milled soap, highly perfumed with a bouquet.

A new container and closure for Magnetic Metal Polish, made by the Magnetic Polish Company, a subsidiary of the Barton Manufacturing Company of St. Louis. A stock bottle by Owens-Illinois with label and closure designed by them.

Jeris puts out a new gift set for the 1936 Christmas trade,—a bottle of Jeris Shampoo, and one of Jeris Scalp Tonic, and a first grade hair brush. The Jeris line is manufactured and marketed by Ar. Winarick, Inc., New York.

and

Packages

The containers for "Dixie White" shoe cleaner are redesigned. A special broad base bottle in two sizes with closure to match the contents. "Dixie White" is manufactured by the Dixie Sales Company of Paterson, N. J. Bottle by Owens-Illinois.

Heetfield Photo

The gallon jug of Windex, the windshield and general glass cleaner manufactured by the Drackett Chemical Company of Cincinnati, makes its appearance for use by gas stations, garages, etc. Small sprayers by Federal Tool Corp. of Chicago. Closure by Phoenix Metal Cap.

A combination toilet soap and wash cloth package,—four bars of Mary Lou white toilet soap by Hewitt and cloths of different colors wrapped in colorless cellophane. Retails at twenty-nine cents in the drug stores.

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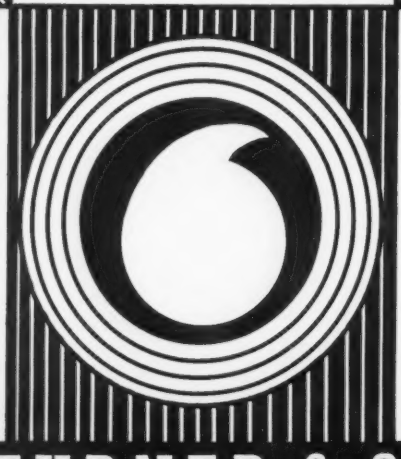
Carbon Tetrachloride

A clear, sparkling product of highest purity, available for immediate delivery in any quantity. Users of Carbon Tetrachloride will find Turner the most reliable and convenient source of supply.



Stearic Acid

Users of Stearic Acid can depend upon Turner for purity and unvarying quality. Single, double or triple pressed available for prompt shipment. Join the list of successful manufacturers now using Turner Stearic Acid.

JOSEPH TURNER & COMPANY

38 EXCHANGE PL. PROVIDENCE — 500 FIFTH AVE., NEW YORK — 40TH ST. & CALUMET AVE. CHICAGO

SUPPLIERS OF CHEMICALS FOR OVER 70 YEARS

NEWS . . . . . .

Armour Advances Eldred

Harry S. Eldred has been elcted vice-president of Armour & Co., Chicago, which he joined in 1923. He has been general plant manager and will have charge of plant operations in his new capacity.

Kerk Astrological Soap

Kerk Guild, Inc., New York, is now offering "Astrological" soap, available in color and odor to suit the individual astral personality. It is packed four cakes to a box, selling at $1.00. A horoscope is included with each box.

Ken Dyke on World Tour

Ken Dyke chairman of the board of Association of National Advertisers, Inc., New York, and formerly advertising manager of Colgate-Palmolive-Peet Co., has sailed for a world tour. He will study advertising conditions in the Orient.

Hear P. & G. Photo Case

A hearing was held September 18 in the Court of King's Bench, Montreal, Canada, in the case in which Procter & Gamble Co. of Canada is charged with illegal use of trading stamps in the sale of soap. The charge arises out of an advertising scheme the firm conducted last spring whereby coupons and soap wrappers were exchanged at a photographic studio for a portrait upon payment of 15 cents. Crown Prosecutor Sabourin contended that the company was issuing trading stamps redeemable by another firm and giving the purchaser a discount on his purchase price. The defense was that the photographer, who returned the wrappers to the soap company, receiving 10 cents for each set given for a portrait, was merely the agent of Procter & Gamble. He contended that the person who bought the soap received not a premium but only an advantage. A motion for the withdrawal of the case from the jury was made by Hon. Lucien Gendron, K. C., acting for the defense, following the hearing of evidence. Decision is expected shortly by Chief Justice Greenshields.

Coleman with Gold Dust

Stewart W. Coleman formerly general manager for the George E. Marsh Co., Cambridge, Mass., is

now general manager of the soap products division of the Gold Dust Corp., New York. The soap division of Gold Dust was established as a separate unit on Sept. 1 to handle the manufacture and merchandising of Gold Dust Washing Powder, Silver Dust, Fairy Soap, and other laundry soaps and cleaners, and Mr. Coleman joined the firm to take charge of the new division. He will be located at the general offices of the company at 88 Lexington Ave., New York. Manufacture of soap products by Gold Dust will continue to be centered chiefly in the Baltimore and St. Louis plants. After a number of years with the George E. Marsh organization, Mr. Coleman severed his connection with that firm about a year ago to enter the advertising and publishing business in New York, returning to the soap industry about a month ago.

Coincident with the formation of the soap division, Gold Dust has established a new division of the business to handle its line of shoe polishes and dressings under the management of J. F. Forsyth, formerly general sales manager. A research and development department, serving both the soap and polish divisions, will be in charge of E. T. Marceau. Frederick K. Morrow, vice-president and director of Gold Dust Corp., and Hollyday S. Meeds, Jr., director, have resigned from the organization. F. B. Zimmerman and Guy Lemmon have been elected vice-presidents of the corporation.

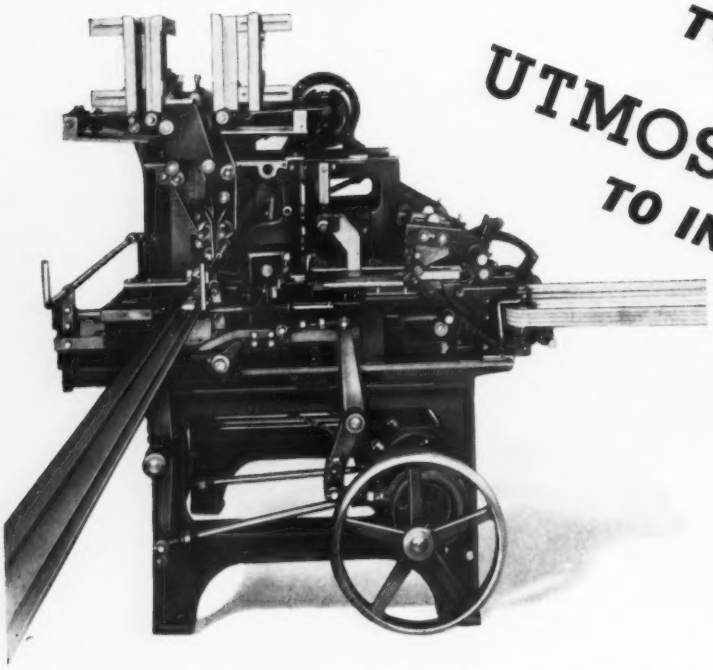
Soap Employment Off

The index of employment in the soap industry compiled by the U. S. Bureau of Labor showed a decline in July, 1936, falling from the June mark of 98.0 to 94.6. This compares with 99.3 for July, 1935. The pay-roll index dropped to a level of 93.5 in July, 1936, as compared with 96.7 in June and 94.4 for July, 1935.

Edlund on Soap Budgeting

Careful budgeting of production by the American soap industry was the keynote of the plan which prevented serious losses and any extensive unemployment during the depression years, according to Roscoe C. Edlund, manager of the Association of American Soap & Glycerine Producers, writing in the *New York Sun* of Sept. 6. Careful management, aided by aggressive marketing, kept the soap industry from sinking into the depths of the depression at a time when American industry generally

PERFECT WRAPPING
TO WIN SALES...
UTMOST ECONOMY
TO INCREASE PROFITS



THE makers of Palmolive, Camay, Lux, and numerous other soap manufacturers all use our wrapping machines.

They appreciate the importance of a perfectly wrapped, smooth-looking package in appealing to feminine taste. They also find that our machines handle the product without in any way marring its delicate surface.

The high speed at which these machines operate produces the maximum volume with the smallest amount of labor, and the utmost economy of floor space. These savings add to profit.

We make many different types of machines to fill practically every wrapping need. We will be glad to study your special requirements and give you the benefit of our experience. Get in touch with our nearest office.

PACKAGE MACHINERY COMPANY
SPRINGFIELD, MASSACHUSETTS

NEW YORK - CHICAGO - CLEVELAND - LOS ANGELES
MEXICO, D. F., Apartado 2303

Peterborough, England: Baker Perkins, Ltd.
Melbourne, Australia: Baker Perkins, Pty., Ltd.

PACKAGE MACHINERY COMPANY
Over 200 Million Packages per day are wrapped on our Machines

was having a difficult time maintaining solvency. At no time in the 1930-35 period was production or employment in soap manufacture very materially below the normal levels of 1923-25, Mr. Edlund states. This "just did not happen" but was the result of careful planning back some years which was adjusted to depression conditions.

New Solvent Soap

Hei-Ho Products Co., City Island, N. Y., has begun the manufacture of a new type solvent soap designed for use on greasy hands and clothing. The new product has been developed by Karl Heilbroner, head of the firm, who is the owner of several German patents on soap specialties. He states that the new item is suitable for use on silks and woolens, and is extremely rapid in action. It is manufactured in paste and liquid forms. The plant of the company is located at 229 Fordham St., City Island, N. Y.

New Camay Prize Contest

Procter & Gamble Co. is offering an annuity of $1,000 a year for life as first prize in a new contest featuring "Camay" toilet soap. Over one thousand additional cash prizes totaling $15,000 will be awarded sectional winners in each of the five zones into which the country has been divided for the contest. Additional prizes will also be offered to dealers to encourage their interest in promoting the contest.

English Soap Exports Drop

Exports of soaps from the United Kingdom during the first six months of 1936 showed a slight decline as compared with figures for the corresponding period in 1935. Totals are reproduced in the following table:

	Quantity Jan.-June 1935	Quantity Jan.-June 1936	Value Jan.-June 1935	Value Jan.-June 1936
Soap, etc.—				
Hard, in bars or tablets excluding toilet, shaving and abrasive, cwt.	292,815	285,980	£319,983	£313,929
Toilet .....cwt.	34,577	32,566	175,210	170,652
Soap stock .....cwt.	3,036	2,287	56,954	49,753

New Goodrich Spot Remover

A new spot-remover announced by the B. F. Goodrich Co. has a self-feeding brush which controls the flow of cleaning liquid to suit requirements. The solvent used is non-inflammable and is said to be effective in removing grease or oil stains from clothing, draperies, automobile upholstery, furniture, etc.

To Set Soap Specifications

A committee which will work out a complete set of specifications for soaps and detergents has recently started functioning under the direction of the American Society for Testing Materials. Members of the various committees and sub-committees include representatives of the leading soap companies as well as persons connected with hospitals, laundries, railroads and other consuming fields. Work has already been started by the various groups on their specific problems and progress reports will be made at a meeting to be held in New York during October or November.

Harry P. Trevithick

Harry P. Trevithick of the New York Produce Exchange, is chairman of the new committee, with F. W. Smither of the U. S. Bureau of Standards as vice-chairman and B. S. Van Zile, Colgate-Palmolive-Peet Co., as secretary. These together with the following constitute the advisory committee: Geo. E. Hopkins, Bigelow-Sanford Carpet Co., Ephraim Freedman, R. H. Macy & Co.; J. B. Crowe, Procter & Gamble Co.; J. E. Doherty, Lever Bros Co.; F. Krassner, U. S. Navy, and Dr. Pauline Mack, Pennsylvania State College.

The work has been divided up into three principal divisions—methods of analysis, specifications, and nomenclature. J. B. Crowe will have particular charge of the work on analytical methods and three subcommittees will work under him on soaps, sulfonated oils and dry cleaning preparations. F. W. Smither will have charge of of the work on specifications, and will have six sub-committees assisting him in specialized fields such as straight soaps, built soaps, textile soaps, etc. Frederick Kenney of Kenney-Herstein, Inc., Inc., New York, is chairman of the committee on nomenclature.

Exhibit at Cosmetic Show

Among the exhibitors at the Perfume and Cosmetic Buyers Conference held in the Hotel Roosevelt, New York, September 22-25, were Colgate-Palmolive-Peet Co. and Kerk Guild, Inc. One of the features of the conference was a fashion show illustrating style trends in cosmetics and perfumes.

Strockbine Leaves P. & S.

Frank Strockbine, formerly advertising manager of Proctor & Schwartz, Inc., Philadelphia, manufacturer of soap drying machinery, has resigned to join the staff of John Falkner Arndt & Co., Philadelphia advertising agency.

Mirax Prods. Moves

Mirax Chemical Products Corp., St. Louis, moved its laboratories and general offices to 1600 Clark Ave. on September 1. The new telephone number is CHestnut 4110.

good t·s·p

GRASSELLI Tri-Sodium Phosphate is standard for general cleaning purposes. It has fairly won its reputation as *GOOD* T.S.P.—for 6 definite reasons:

1—Quality backed by 97 years of chemical experience; *2—a process* permitting Grasselli T.S.P. to *cure* (hence it is free flowing); *3—five grades*—fines, globular, medium, coarse, and flake; *4—almost instantly soluble* in water making hard water soft; *5—non-sifting packages*—barrels with paper liners, also fibre kegs and bags; *6—Twenty branches* and warehouses to serve you—quicker delivery—complete stocks—economy of freight rates.

That, in a nutshell, is why *Grasselli Grade* is known as *good* T.S.P.—and *good* Service. Prove it to yourself—try it.

Let Us Also Quote You On

Silicate of Soda
Caustic Soda
Soda Ash
Carbon Tetrachloride
Paradichlorobenzene
Sodium Fluoride

THE GRASSELLI CHEMICAL COMPANY, Inc.
FOUNDED 1839 **CLEVELAND, OHIO**

New York Office and Export Office: 350 Fifth Avenue

GRASSELLI

ALBANY, BIRMINGHAM, BOSTON, CHARLOTTE, CHICAGO, CINCINNATI, DETROIT, MILWAUKEE, NEW HAVEN, NEW ORLEANS, PHILADELPHIA, PITTSBURGH, ST. LOUIS, ST. PAUL

DU PONT

SAN FRANCISCO, 584 Mission Street
LOS ANGELES, 2260 East 15th Street

Represented in Canada by CANADIAN INDUSTRIES, LTD., General Chemicals Division—MONTREAL and TORONTO

GRASSELLI GRADE

A standard held high for 97 years

N.B.S. Markets Own Brands

A national advertising campaign, including local radio programs with Billy B. Van of Pine Tree Products Co. as master of ceremonies, has been arranged by National Brands Stores, Inc., to promote a new private brand line of its own. With this line, N.B.S. expects to develop ample sources of income outside the province of the Robinson-Patman Act. N.B.S. formerly engaged chiefly in the activities of the ordinary resident buyer or buying agency for a large group of food jobbers or wholesalers, specializing in nationally advertised products. It is expected that they will still cooperate closely with manufacturers of widely accepted nationally advertised products, but with their new brand line will be able to establish a more independent position and build up a more profitable position than would otherwise be possible under present circumstances.

Lever Soap Plant Sold

Lever Bros. Velvet Soap Co., which has been operating in China over a period of years has just been sold to Japanese interests. It is reported that seven Japanese synthetic oil companies, who have formed an Export and Joint Sales Guild, are backing the transaction. The Chinese duty of 30 per cent on soap is claimed to be the driving force in the Japanese determination to manufacture in China, since they find it impossible to ship from domestic plants.

Seeks American Soaps

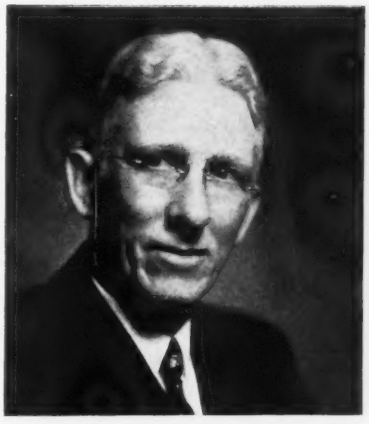
A concern in Port-au-Prince, Haiti, is interested in purchase of or agency for American soaps. Interested parties may communicate by addressing the U. S. Bureau of Foreign & Domestic Commerce, mentioning inquiry number 1157.

Stop Cleaning Fluid Claims

Leev-No-Ring Chemical Co., New York, is charged in a U. S. Federal Trade Commission complaint with misrepresentation of the nature, merit and value of cleaning fluids. The seller allegedly represents that his products can be used safely and will remove all grease spots instantly without injury to the most delicate fabrics, and that they will leave no rings. Charging that such claims are unduly optimistic, the Federal Trade Commission has ordered this seller to show cause before October 23 why he should not be required to cease making such representations.

George F. Adamson Honored

George F. Adamson, Colgate-Palmolive-Peet treasurer, was honored recently at a banquet held at the Plaza Hotel, Jersey City, to celebrate the fiftieth anniversary of his connection with the company. Among the 500 guests were officers and employees of C-P-P and Mayor Hague of Jersey City.



Geo. F. Adamson

Hewitt Soap Enlarges Plant

Hewitt Soap Co., Dayton, has awarded a contract to H. K. Ferguson Co., Cleveland, for the construction of a $20,000 addition to its plant. The addition, which is expected to be completed in a few weeks, will make possible inauguration of three eight-hour shifts and manufacture of some of the products of Cincinnati Soap Co., which Hewitt recently bought. The Edgemont plant of Cincinnati Soap will continue manufacturing laundry soap.

New Soap Company

United States Soap Co., 102 Atwater St., Detroit, has just been organized to manufacture "Supreme" laundry soap.

New Fay Plant in England

Kenneth C. Fay, president of Parfumerie de Raymond, New York, returned late in August from a five months stay in Europe during which he established a new plant for his company in England, and spent some time in France. He reported conditions in England as booming with plenty of employment and money being spent freely by the people. As to France, he reported general economic conditions as not good. In Grasse, particularly, he found that costs of production of flower products had increased some 40 percent under the present government owing to restrictions on labor, and that this condition applied to most manufacturing operations. He stated that manufacturers of flower oils are having a very difficult time inasmuch as they can secure higher prices only with difficulty.

Markets New Soap

Karl Heilbronner has recently organized Hei-Ho Products Co., at 229 Fordham St., City Island, N. Y., and is offering a new soap product under the name "Kleen-O" in paste and liquid form. Although it is particularly recommended for cleaning greasy hands, it contains no sand or abrasives. It is said to be perfectly neutral and suitable for use in the washing of silks or woolens.

Gold Dust Net Down

Net earnings of $1,510,467 for the twelve months ending June 30, 1936, as compared with $2,097,477 for the same period of 1935, are reported by Gold Dust Corp. The management blames higher raw material costs, taxes, and competition for the drop.

New Penn. Salt Product

Pennsylvania Salt Mfg. Co., Philadelphia, has recently introduced a new anhydrous sodium orthosilicate in the form of white, free-flowing granules readily soluble in water. The new product is said to be particularly valuable for cleaning steel.

Short Cuts to PERFUMING ECONOMIES

Substitute
WITHOUT SACRIFICE

When a substitute saves you money that's Not News . . . but when a substitute saves you money without sacrificing quality—THAT'S NEWS . . . *very good news.*

To users of Oil Sassafras Artificial we suggest the replacement of PERFUME OIL 413 to effect production economies. It has a clean fragrance and imparts a residual odor like that of Safrol.

For the most efficient method of using this new specialty let us know your particular requirements, or send for a 4 oz. testing sample.

Perfume Oil 413

An *Inexpensive* Substitute for Expensive Oil Sassafras Artificial

An Efficient
SUBSTITUTE
for
OIL CITRONELLA

Andro M M & R is equal in pungency to the best citronella oil. It fluctuates neither in price, quality or strength. It is light in color, (almost water white) and does not have the tendency to darken in finished soaps, sprays or other products.

This excellent product of the M M & R laboratories is worth immediate investigation.

ANDRO M M & R
Efficient Substitute *for*
OIL CITRONELLA

MAGNUS, MABEE & REYNARD, INC.

QUALITY ESSENTIAL OILS, BALSAMS, AROMATIC CHEMICALS, BASIC PERFUMES, FLAVORING MATERIALS . . . SINCE 1895

32 CLIFF STREET NEW YORK, N. Y

OFFICES IN PRINCIPAL CITIES

A. & P. Offers New Contracts

In an attempt to retain the advertising allowances which were possible before the Robinson-Patman Act went into effect, the Great Atlantic & Pacific Tea Co., New York, is offering new contracts which make only one concession to the new law. The new contracts differ from the old ones just in the inclusion of the following clause: "the manufacturer avows his willingness to make the same agreement as is here made with any other purchasers similarly situated, and on proportionately equal terms." This is regarded as the first move on the part of chains to recover the advantages lost through the R-P act.

Considering the possibility of the act being declared unconstitutional, Kroger Grocery and Baking Co., Cincinnati, is reported to have proposed to manufacturers that they set aside as trust funds the amount of brokerage the chain would have received were the act not in effect. Thus the full amount of brokerage might eventually be recovered.

Toilet Soap Price Rise

Colgate - Palmolive - Peet and Procter & Gamble Co. recently raised prices on leading brands of toilet soap almost 5 per cent. An increase of 30 cents a gross was made by P. & G. on its leading hard-milled scented toilet soap, making the price about $7 a gross. This follows a similar advance made about six months ago. The C-P-P price rise was also on a leading brand. A continually advancing raw material market—to which high processing taxes and the war in Spain have been significant contributing factors—is the cause of the advance.

Soap Firm at New Address

Beats Oil Products Co., Los Angeles, has moved from 928 W. 39th St. to 356 W. 56th St.

To Hold Drug Trade Outing

The drug, chemical and allied trades section of the New York Board of Trade will hold its fall meeting and golf tournament at Skytop in the Poconos, October 23rd and 24th. Joseph A. Huisking, Chas. Huisking & Co., is chairman of the outing committee.

Counts In Business 25 Years

A quarter of a century in business has been completed this year by James Counts Soap Co., 801 North Sixth St., St. Louis. The company engaged in the manufacture of potash and vegetable oil soaps, was founded in 1911 by James Counts. He operated it on his own account until June, 1928, when Edward J. Stoffregen, a chemist in the employ of the Wm. Waltke Soap Co., was admitted as partner. Their quarters are located in the district that will be razed if and when the contemplated Jefferson Memorial Plaza becomes an actuality. Mr. Counts says that if this project becomes certain of fulfillment it is their plan to erect a small, modern factory elsewhere.

George Hasslacher Dies

George F. Hasslacher, former director of Roessler & Hasslacher Chemical Co., New York, was killed September 15 when he fell from the twenty-third floor of an office building at 10 East 40th St., New York. Mr. Hasslacher was a member of the firm of Snyder MacLaren Processes, Inc., whose offices are located in the 10 East 40th St. building.

Harris Soap Advertising

Harris Soap Co., Buffalo, has appointed Armand S. Weill Co. of that city as advertising agents. A premium offer on Harris "Oxygen Soap Flakes" will be featured on the radio, while plans for "Ready Suds" are being prepared.

Rubinstein In New Office.

Helena Rubinstein, Inc., cosmetic manufacturer, has taken new quarters at 715 Fifth Ave., New York, where the entire building will be occupied. Remodeling is now in progress. When completed, the new quarters will be air-conditioned, and will include a library and a motion picture room.

Mrs. Lora Hicks Dead

Mrs. Lora A. Hicks, widow of George W. Hicks, former treasurer of Green Oil Soap Co., Chicago, died recently in her home in Oak Park, Ill., at the age of 79.

Opens New Branch Office

H. H. Coleman Co., 801 South Eleventh St., St. Louis, soap and laundry supplies, has opened a branch office at 2019 Grand Ave., Kansas City, Mo.

Cotton Oil Stocks

Stocks of refined cottonseed oil on hand in United States as of August 31, 1936, totaled 237,220,369 lbs., as compared with 342,818,200 lbs., Aug. 31, 1935, according to U. S. Dept. of Commerce figures. Stocks of crude cotton oil were 26,547,183 lbs., Aug. 31, 1936, as compared with 27,880,367 lbs., Aug. 31, 1935.

Canadian Soap Output Up

Production of soaps, washing compounds and cleaning preparations in Canada increased 18 per cent in total value in 1935 compared with 1934, according to a report just issued by the Dominion Bureau of Statistics. Production during 1935 totaled 187,247,394 pounds of all kinds of soap, valued at $13,356,491. The value of imports of soaps into Canada increased to $494,720 in 1935 from the 1934 figure of $449,562—an increase of 9 per cent. A total of 6,846,179 pounds of soap was imported. Exports of soap amounted to 27,818,989 pounds, valued at $1,321,197 in 1935, as compared with $914,439 in 1934. The principal shipments were of toilet soap to the United Kingdom and the Netherlands. Per capita consumption is estimated at about 15 pounds for Canada. Increases of 6 per cent in employment and 8 per cent in expenditures for salaries and wages are reported.

There were 104 firms in the soap business in Canada in 1935, three more than in 1934. The total capital employed was $14,118,130, employees numbered 1,931, and salaries and wages totaled $2,490,918. Materials cost $8,980,703, as com-

OIL THYME WHITE & RED

CARVACROL

PHELLANDRENE

THREE PRODUCTS WELL-KNOWN TO EVERY SOAP MAKER. WE ARE PREPARED TO SUPPLY YOUR NEEDS ON SPOT OR CONTRACT BASIS.

Working Samples on Request.

ORBIS

PRODUCTS CORPORATION

215 PEARL STREET, NEW YORK - FACTORY & LABORATORY, NEWARK, N. J.

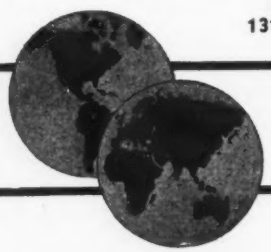
CHICAGO
844 Rush St.

PHILADELPHIA
253 Bourse Bldg.

BOSTON
131 State Street

LOS ANGELES
742 So. Hill St.

Water Soluble Gums	Waxes	Cosmetic Raw Material	Fruit Flavors
Filter Paper	Stearic Acid	Oleo Resins	Food Colors
Aromatics	Essential Oils	Perfume Bases	Quince Seed
Rice Starch	Zinc Oxide French	Olive Oil	Irish Moss



pared with $7,189,860 in 1934. The cost of fuel and electricity was $367,775 in 1935, $21,709 higher than in 1934.

The Canadian soap industry used 26,733,467 pounds of coconut oil in 1935, about the same quantity as was used in 1934. Consumption of palm and palm kernel oil increased to 22,518,413 pounds from 12,184,670 pounds. About twice as much fish oil was used in 1935 as in 1934, amounting to almost 9,000,000 pounds. The soap kettle used 6,690,098 pounds of various kinds of foots in 1935, as against 4,554,855 pounds in 1934. Consumption of tallow, grease, and other soap stock, however, dropped to 36,305,065 pounds in 1935 from the 1934 total of 45,210,398, but cost $2,039,878 as compared with the 1934 cost of $1,742,190. The amount of fatty acids used was only 890,391 pounds in 1935, whereas in 1934 1,128,952 pounds were used. A total of $1,098,858 was spent for caustic soda, caustic potash, soda ash, water glass, common salt and trisodium phosphate in 1935. This compares with $1,023,397 spent for these items in 1934.

Laundryowners Will Meet

The Laundryowners National Association of United States and Canada will hold its 53rd annual meeting in San Antonio, Texas, Oct. 19-22. Among the features of the meeting will be an educational exhibit and display of light laundry equipment and supplies, which will introduce a number of new products and inventions. Included in the group of allied trades firms who will be represented in the exhibit are International Nickel Co., New York; Mathieson Alkali Works, New York; Davies-Young Soap Co., Dayton, O.; Armour & Co., Chicago; H. Kohnstamm & Co., Chicago; A. E. Staley Mfg. Co., Decatur, Ill., and Procter & Gamble Distributing Co., Cincinnati.

Laco Asks Price Control

Laco Products, Inc., successors to Lockwood Brackett Co., have sent a letter to their wholesale distributors asking that they observe Laco resale prices and that they further the company's policies by refraining from giving any rebates or terms other than those approved by the company. The letter is signed by L. A. Pelton, general manager.

Vacate Excise Tax Injunctions

The Eighth Circuit Court of Appeals acted Sept. 8 in the Haskins Bros. and Iowa Soap Co. cases and ordered the preliminary injunctions in these cases dissolved. The court held that the usual legal remedies open to a taxpayer are adequate in the case of these two companies, and that injunctions against the collection of the tax are unnecessary. The court did not pass on the constitutionality of the tax. The opinion by Judge Thomas was concurred in by Judge Woodrough. Judge Dewey dissented but without filing an opinion. The case had been argued before these judges at St. Paul on June 3. We are advised that petition will be made at once to the Supreme Court of the United States for certiorari, this being in accord with the previously stated plan to bring several of the oil tax cases simultaneously if possible before the Supreme Court.

GERANIUM OIL

"As the franc goes, so goes geranium." With new developments in geranium production in Soviet Russia and the British African Colonies, and an uncertain situation in the French franc, geranium stands at the crossroads. Read "Geranium Oil" by Harry J. Monroe in an early issue of SOAP.

Gordon-Allen Tax Suit

Declaring the Federal Excise Tax on the processing of coconut oil to be unconstitutional and void, Gordon-Allen, Ltd., San Francisco soap manufacturer, has filed a bill of complaint in the District Court of the United States for the Northern District of California, Southern Division, asking judgment against the Federal government in the amount of the tax it has paid on Philippine coconut oil, plus interest and costs.

A Cannon dishcloth for one cent with the purchase of a large package of "Chipso" is being offered currently by Procter & Gamble Co.

Robertson Plant May Reopen

The plant of J. T. Robertson Co. was bought in again by the First Trust & Deposit Co. of Syracuse at the auction held in Syracuse, Sept. 11. It had been proposed to split the plant up and sell the separate items, but this plan was abandoned when the sale prices of the individual items failed to approach the unit bid of the bank for the whole plant. It is understood that the bank bid the plant in for an amount slightly in excess of its $30,000 mortgage and the sale has now been confirmed by the court. It is the plan of the bank, we are advised, to hold the plant together as a unit. They hope to interest some outside group in coming in and reopening the plant once more.

DUROFIX

MILLIONS of dollars for appealing odors! . . . That is what soap manufacturers spend each year to scent their products—and they consider it money well invested. But how much more profitable that investment would be were they to insure their soaps against the loss of those delicate, sales-compelling scents. And how easily, how effectively they could accomplish this, without an added penny's cost, simply by substituting a small portion of **DUROFIX, F.B.** for an equal portion of the perfume base.

This remarkable fixative, perfected in the FRITZSCHE laboratories, unifies the perfume blend and prevents diffusion of the more volatile constituents. Being practically odorless and colorless, it will disturb neither the product's odor complex nor its color. It will not hydrolyze or saponify and may be used, therefore, in soaps of every kind, in bath salts and other products. It is available in a number of different odors.

Soap chemists who have not yet tried **DUROFIX, F.B.** should write in at once for testing samples and further particulars. They will discover, as have many others, that **DUROFIX** actually accentuates the odor, producing a fuller fragrance than when the perfume is used alone.

"Fragrance Creates *Sales Appeal"*

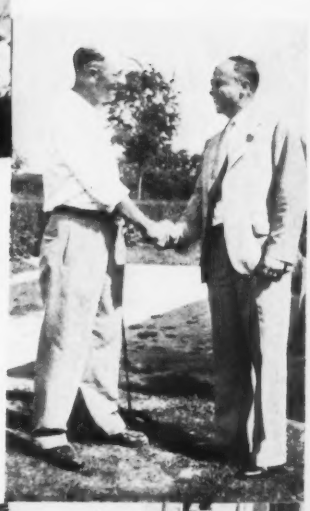
FRITZSCHE *Brothers, inc.*

816 WEST 8TH STREET LOS ANGELES, CAL.
Proprietors of PARFUMERIES de SEILLANS Seillans, France
FRITZSCHE BROTHERS, of Canada, Ltd., 77-79 Jarvis St., Toronto, Canada

PORT AUTHORITY COMMERCE BLDG.
76 NINTH AVENUE, NEW YORK, N. Y.
118 WEST OHIO ST. CHICAGO, ILL.

Golf Outing
September 15

Olympia Fields
Country Club



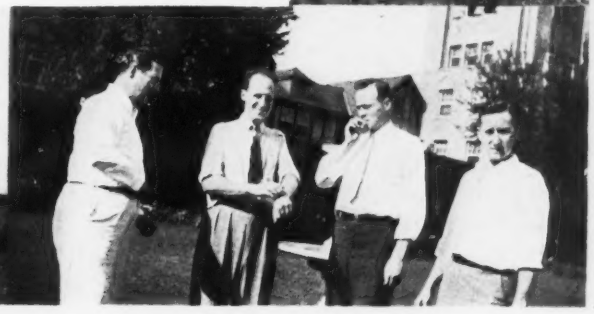
Left: C. E. Jamieson and Ed Brand.

Above: Tom Morgan, Jerry Carlisle, Ray Vicary and Lee Derby.

Right: Ray Vicary and George Wrisley.

Lower left: Bill Schutte, D. T. Cunningham and M. V. Pennal.

Lower right: Norm Plessner, Art Carnes, Bruce Rasmussen and Harry Jackson.



Chicago Wins Golf Cup

The Golf Auxiliary of the Chicago Drug and Chemical and the Chicago Perfumery, Soap and Extract Associations wound up the 1936 season September 15th at Olympia Fields Country Club with Chicago regaining the inter-city cup by defeating their Detroit guests 36½ to 11½. There were thirty members of the Detroit association on hand while over seventy-five members of the Chicago associations turned out. At the banquet following the tournament speeches were made by Elmer Smith and R. E. Holland, co-chairmen of the Golf Auxiliary, George A. Wrisley, president of the Chicago Perfumers association and Ray Vicary, president of the Detroit association.

Elmer Smith and R. E. Holland were in charge of general arrangements, with W. H. Schutte supervising prizes. The list of those who donated prizes follows: Givaudan-Delawanna, Wilson Laboratories, Victor Chemical, Merck & Co., Western Inst. & Mfg. Co., American Distilling Co., Allen B. Wrisley Co., Frank Z. Woods Co., Bristol-Myers Co., Mid-West Sales, Harry Holland & Son, Owens-Illinois Glass, Solo Laboratories, Riviera Products, E. I. Du Pont de Nemours, McKesson-Fuller-Morrison, L. Sonneborn, Orbis Products Co., Monsanto Chemical, Geo. Silver Import Co., Helfrich Laboratories, G. H. Van Kirk & Associates, Norwich Pharmacal, W. H. Jelly & Co., Kimble Glass, New York Quinine, Norda Essential Oil & Chemical Co., Ungerer & Co., Atlantic Gelatin Co., Dodge & Olcott, American Aniline, Neuman, Buslee & Wolfe, Armstrong Cork, Richard Krause Co., Hynson-Westcott-Dunning, Petrolagar Laboratories, P. R. Dreyer, Abbott Laboratories, Nyal Co., A. C. Drury & Co., Thayer Pharmacal, Fritzsche Bros., and R. W. Greeff & Co. Next year's inter-city tournament will be held in Detroit in August or September.

VITAMIN SOAPS

Does the incorporation of Vitamin F in toilet soaps add anything to these soaps which is of value when used on the human skin? Several of these soaps are already on the American market. Based on the laboratory work of the past year, vitamin toilet soaps will be discussed in an article in the next issue of SOAP.

KRANICH SOAPS

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POWDERED CASTILE SOAP

Powdered Palm Powdered Coconut Oil Soap Powdered Coco-Castile

ALSO a complete line of KRANICH QUALITY

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Auto Soaps U. S. P. Potash Soaps

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ADD SOAP TO YOUR LINE OF BATH PREPARATIONS

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Sample on request

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- Stands up well.
- Worthy of your attention.

NUMEROUS OTHER STANDARD ODORS. SPECIAL TYPES CREATED.

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Fritzsche Adds to Staff

A new representative has just been added to the sales staff of Fritzsche Bros., Inc. in the Philadelphia district where Warren R. Godfrey, formerly production manager of Lang's Beverages of Buffalo, is now assisting William F. Kiefer and George R. Fellows to cover this territory. Incidentally the Philadelphia offices have recently been moved to 12 South 12th St., one of the city's newest office buildings. Another change is the transfer of Charles H. Milton from the New York plant to the New England territory where he will assist M. J. Niles, manager of the Boston office.

Niagara In New Quarters

Niagara Alkali Co. and Electro Bleaching Gas Co. occupied new quarters October 1 in the Lincoln Building, 60 East 42nd St., New York. The new offices are located on the 30th floor and provide larger and better office facilities. The move was made necessary by increasing business outrunning the limitations of the old quarters.

Announce Cosmetic Classes

Classes in the chemistry of cosmetic manufacturing will be given this semester by Wayne University College of Pharmacy, Detroit, Mich. The fall term opened September 25 and the cosmetic classes are scheduled to be held each Friday evening from 7 to 9 o'clock. Maison G. De Navarre will be the lecturer.

SPECIALTY TOILET SOAPS

Cosmetic soaps, germicidal soaps, vitamin soaps, and other specialty items in the realm of toilet soaps,—their composition, value, and the claims of the makers, their possibilities marketwise,—a discussion to be published soon in SOAP based on experience in the English market by Joseph M. Vallence under the title "Specialty Toilet Soaps."

Contracts Awarded

Soap and Polish Awards

At a recent bidding opened by the Fort Mason Quartermaster, a bid of 6.75c for metal polish, made by Grady Mfg. Co., L. I. City was accepted. Other awards made were for stove polish, to Joseph Dixon Crucible Co., Jersey City, at a price of 4.25c and for saddle soap, to R. M. Hollingshead Corp., Camden, N. J., at a price of 13c.

Naphthalene Award

Braun - Knecht - Heimann Co., San Francisco, has been awarded a contract for flake naphthalene at a price of 8.25c by the Fort Mason Quartermaster.

Insecticide Award

Consolidated Drug Corp., New Orleans has just been awarded a contract for 500 gallons of insecticide by the Camp Beauregard, La. Quartermaster at a price of 49c.

Fort Mason Soap Award

General Soap Co., San Francisco, has been awarded contracts by the Fort Mason Quartermaster for white toilet soap at a price of 2.52c and laundry soap at 3.09c.

Chicago Soap Awards

At a recent bidding opened by the Chicago Quartermaster, the following awards were made: Samuel M. Sher Co., Chicago, 500,000 lbs. laundry soap at 3.5c; Hunnewell Soap Co., Cincinnati, 30,000 cakes grit soap at 1.75c, and Iowa Soap Co., 200 cakes toilet soap at 2.8c.

Naphthalene Award

Barrett Co., New York, has just been awarded a contract for naphthalene at 6.8c f.o.b. Philadelphia by the Fort Mason U. S. Army Quartermaster.

Fort Mason Sprayer Awards

The Fort Mason Quartermaster has recently awarded contracts for sprayers to Baker, Hamilton & Pacific Co., San Francisco, at 15.5c and to Solbach & Nusbaum, San Francisco, for 1-qt. sprayers at 28c.

Saddle Soap Award

R. M. Hollingshead Corp., Camden, N. J., has just been awarded a contract for saddle soap at 9.09c f.o.b. Ft. Mason by the Fort Mason Quartermaster.

Ralph Auch Superintendent

Ralph H. Auch, chief chemist for the American Products Co., Cincinnati, manufacturers of a large line of household products, has been appointed general superintendent and production manager of the company in addition to continuing as chief chemist, according to an announcement by Albert Mills, president of the firm. Mr. Auch has been associated with the manufacture of soaps, detergents, cosmetics, insecticides, and food products for the past twenty years since his graduation from the University of Cincinnati. Prior to his association with American Products some years ago, he was connected with the Great Atlantic & Pacific Tea Co., Odorono, Glazo, and the Procter & Gamble Co. He is particularly well known in the household products industries through his writings in the trade press of both Europe and the United States on manufacturing, production, and chemical subjects. He has been a frequent contributor to the pages of SOAP. During the world war, he was an officer in the Chemical Warfare Service.

Files 2nd Tax Refund Suit

Cincinnati Soap Co., Cincinnati, has filed a second suit against the United States, seeking a refund of processing taxes paid on coconut oil. The new action differs from the original one in that the previous case included an issue on the interpretation of the statute. The new case raises constitutional issues exclusively.

Efficient and clean

Liquids—light or heavy—flow freely from this Por-Spout, and the stream can be accurately controlled. The Hinged Spring Dust Cover flips back, completely exposing the entire spout for FULL POURING VISIBILITY. It snaps back in closed position fully covering the spout and keeping it clean. The Swivel Spout turns back into the proper recess in the cover when not in use—out of the way for stacking and handling.

Ideal for Liquid Soaps, Shampoo Bases, and Insecticides.

Your customers will like this handy, practical Por-Pail. Put it on your Sales Staff now.

Request sample and prices of the efficient SWIVEL-SPOUT POR-PAIL with Hinged Spring Dust Cover—no obligation to you.

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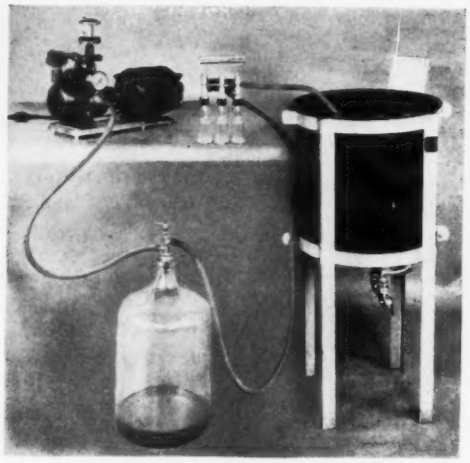

ERTEL PORTABLE BOTTLE FILLER

Whether you make liquid soaps, polishes, shoe cleaners or livestock spray . . . you will find an Ertel Portable Bottle Filler a downright economy . . . a dollar and cents saving on every ounce bottled. This filler has a special automatic overflow feature . . . fills each bottle precisely and uniformly . . . ends the old drip nuisance. Quiet, self oiling, self cooling. Filling capacity up to 2 gallons per minute.

ERTEL ACID RESISTANT TANKS

The safe equipment for storing everything from perfume materials to disinfectants. The tanks are built for rough usage and are designed to accommodate the Ertel Portable Mixers where high speed mixing is required.

Manufacturers of Asbestos Disk Filters, Neutral Asbestos Filter Sheets, Pumps, Portable Mixers, Glass Lined Tanks, Allegheny Stainless Steel Tanks, Jacketed Tanks, Portable Vacuum Bottle Fillers, Semi-automatic Vacuum Bottle Fillers, Capping Equipment.

ERTEL ENGINEERING CORPORATION
Dept. C. 120 E. 16th St. New York, N. Y.

New Trade Marks

The following trade-marks were published in the Sept. issues of the *Official Gazette* of the United States Patent Office in compliance with Section 6 of the Act of September 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of publication. As provided by Section 14, fee of ten dollars must accompany each notice of opposition.

Trade Marks Filed

FLORAQUIN—This in solid letters describing antiseptic. Filed by G. D. Searle & Co., Chicago, June 20, 1936. Claims use since June 2, 1936.

MAPORIZE—This in solid letters describing cleaner. Filed by Mapor Corp., New York, Nov. 8, 1935. Claims use since May 1, 1935.

CLEARTEX—This in solid letters describing cleanser and polish. Filed by Cleartex Co., Oakland, Cal., Jan. 20, 1936. Claims use since Nov. 25, 1935.

WYT-S-SNO—This in solid letters describing shoe cleaner. Filed by S. S. Stafford, Inc., New York, June 22, 1936. Claims use since Jan. 24, 1936.

S. B. S. No. 11—This in solid letters describing hand soap. Filed by Sugar Beet Products Co., Saginaw, Mich., June 29, 1936. Claims use since Dec. 4, 1935.

SPORTEX—This in solid letters describing shoe cleaner and polisher. Filed by It Shoe Polish Co., Baltimore, July 3, 1936. Claims use since Jan. 30, 1936.

LAVENDOMEAL — This in solid letters describing bath salts and water softener. Filed by Yardley of London, Inc., Union City, N. J., Apr. 27, 1935. Claims use since Mar. 15, 1934.

METAL-TONE — This in solid letters describing metal polish. Filed by Union Oil Co. of Calif., Los Angeles, May 25, 1935. Claims use since Nov. 1, 1932.

CUTEX—This in outline letters describing soap. Filed by Northam Warren Corp., New York, June 11, 1936. Claims use since Dec. 28, 1917.

VITEX—This in broken letters describing dry detergent. Filed by Pennsylvania Salt Mfg. Co., Philadelphia, July 2, 1936. Claims use since June 23, 1936.

BIG K—This in solid letters with large "K", describing wall paper cleaner. Filed by Kutol Products Co., Cincinnati, July 3, 1936. Claims use since Dec., 1933.

CALICO—This in outline letters describing soap. Filed by Procter & Gamble Co., Cincinnati, July 8, 1936. Claims use since May 12, 1936.

EXSECT—This in square solid letters describing insecticide. Filed by Bordman Co., Philadelphia, June 2, 1936. Claims use since May 1, 1935.

HOT-FOOT — This in outline letters describing insecticide. Filed by Hot Foot Chemical Co., Birmingham, Ala., July 2, 1936. Claims use since Oct. 1, 1932.

UNITED ROACH TABLETS—This in solid letters in rectangle describing insecticide and vermin exterminator. Filed by United Sanitary Chemicals Co., Baltimore, July 3, 1936. Claims use since May 3, 1933.

MOTHAIRE—This in solid letters describing deodorant and insect repellent. Filed by Odora Co., New York, July 14, 1936. Claims use since June 29, 1936.

MAID BRITE — This in solid type above silhouette of girl standing on ball, describing soap. Filed by Dacar Products Co., Canton, O., Aug. 11, 1934. Claims use since Apr. 3, 1934.

FELTWITE — This on reverse plate with sketch of hat, describing hat cleaner. Filed by Lafayette Products Co., Brooklyn, Mar. 4, 1936. Claims use since Jan. 22, 1936.

VALEN'S SILKLIKE — This in solid letters describing shaving cream. Filed by Valen's Silklike Products, Lynbrook, N. Y., June 18, 1936. Claims use since June 1, 1935.

CLIPPER — This in solid letters describing shaving cream in stick form. Filed by Louangel Corp., New York, June 20, 1936. Claims use since Mar. 2, 1936.

SORBS—This on reverse plate describing soap powders, liquid soap, laundry soap, soap flakes, hand soaps, and toilet soaps. Filed by Royce Chemical Co., Carlton Hill, N. J., July 11, 1936. Claims use since July 1, 1936.

POWOW—This in solid letters with sketch of boy dressed as an Indian carrying container, describing soap powder. Filed by West Coast Soap Co., Oakland, Cal., July 20, 1936. Claims use since Jan., 1931.

MEDISKIN—This in solid script describing soap and shaving cream. Filed by Mediskin Co., St. Louis, July 25, 1936. Claims use since Apr. 1, 1936.

ROYOX—This in outline letters on rectangle describing general cleaner. Filed by Royce Chemical Co., Carlton Hill, N. J., Aug. 4, 1936. Claims use since July 21, 1936.

FLEXO—This in heavy script describing water softener. Filed by Swift & Co., Chicago, June 1, 1936. Claims use since Apr. 27, 1936.

ANTMORG—This in solid letters above container, describing insecticide. Filed by Northfield Specialty Co., Northfield, N. J., June 17, 1936. Claims use since May, 1936.

ROBERTA—This in solid letters describing insect repellent. Filed by National Drug Products Co., Chicago, July 24, 1936. Claims use since June 6, 1935.

Trade Marks Granted

337,902. Polishing and Cleaning Powder. Bon Ami Co., New York. Filed February 14, 1936. Serial No. 374,872. Published April 7, 1936. Class 4.

338,180. Shampoo. Doris Drake, New York. Filed March 28,

New!

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REFINED WAXES

CARNAUBA . . .

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IN *Flake* FORM

ZINC OXIDE

White-U. S. P.
Gold . . . . . .
Green and Red Seals
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CAUSTIC SODA
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liquid . . flake . . solid

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All Packages
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DISODIUM PHOSPHATE
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SAL AMMONIAC
SALT
SAL SODA
SILICATE OF SODA
SODA ASH
TRISODIUM PHOSPHATE
CASTOR OIL
COCOANUT OIL
CORN OIL
COTTONSEED OIL
LARD OIL
NEATSFOOT OIL
OLEIC ACID-RED OIL
OLIVE OIL
OLIVE OIL FOOTS
PALM OIL
PALM KERNEL OIL
PEANUT OIL
RAPESEED OIL
ROSIN
SALAD OIL
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WHITE OLEINE
FATTY ACIDS
STEARINE
STEARIC ACID
GREASE
TALLOW

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MEMBERS NEW YORK PRODUCE EXCHANGE

EASTERN INDUSTRIES, INC.

125 Bergen St.
Harrison, N. J.

1936. Serial No. 376,530. Published June 16, 1936. Class 6.

338,185. Liquid Preparation Used for Bleaching, Cleaning, Sterilizing, Disinfecting, and Deodorizing. Wonderene Co., Milwaukee. Filed March 28, 1936. Serial No. 376,533. Published June 16, 1936. Class 6.

338,244. Liquid Soaps and Oil Soaps. Du Bois Soap Co., Cincinnati. Filed August 20, 1934. Serial No. 355,184. Published May 12, 1936. Class 4.

338,248. Shaving Preparations, Soap Powder, Laundry Soaps, Soap Flakes, Hand Soaps, and Toilet Soaps. Yardley of London, Inc., Union City, N. J. Filed March 7, 1935. Serial No. 362,246. Published April 23, 1935. Class 4.

338,380. Polishing Wax. Cascade Outing Supply Co., Seattle. Filed January 27, 1936. Serial No. 374,172. Published June 23, 1936. Class 16.

338,415. Metal Polish, Cleaning Fluid, Soaps and Soap Powders. S. H. Kress & Co., New York. Filed October 5, 1935. Serial No. 370,053. Published June 23, 1936. Class 4.

338,420. Insecticides. American Gypsum Co., Port Clinton, Ohio. Filed April 28, 1936. Serial No. 377,732. Published June 23, 1936. Class 6.

338,464. Silver Polish. Rodwood Products, Inc., New York. Filed April 21, 1936. Serial No. 377,475. Published June 23, 1936. Class 4.

338,485. Liquid Metal Polishes. Worth-Le Products, Port Ewen, N. Y. Filed April 4, 1936. Serial No. 376,807. Published June 23, 1936. Class 4.

338,497. Cleaning Preparations. Midway Chemical Co., Chicago. Filed October 2, 1935. Serial No. 369,925. Published June 23, 1936. Class 4.

338,511. Tooth Powder. Clen S. Humphrey, Brooklyn. Filed April 22, 1936. Serial No. 377,511. Published June 30, 1936. Class 6.

338,527. Preparation for Cleaning Glass. C. M. Kimball Co., Everett, Mass. Filed April 7, 1936. Serial No. 376,904. Published June 23, 1936. Class 4.

338,528. Shaving Cream. Halitosine Co., St. Louis. Filed April 8, 1936. Serial No. 376,952. Published June 23, 1936. Class 4.

338,549. Detergent. Calgon, Inc., Pittsburgh. Filed October 17, 1935. Serial No. 370,455. Published June 23, 1936. Class 4.

338,553. Soaps and Shaving Cream. Houbigant, Inc., New York. Filed October 12, 1935. Serial No. 370,310. Published February 4, 1936. Class 4.

338,585. Soap. Band Box Corp., St. Louis. Filed January 25, 1936. Serial No. 374,076. Published June 30, 1936. Class 4.

338,599. Liquid Soap and Shaving Soap. Altoona Beauty and Barber Supply Co., Altoona, Pa. Filed January 22, 1936. Serial No. 373,960. Published June 23, 1936. Class 4.

338,614. Toilet Soap. Procter & Gamble Co., Cincinnati. Filed March 13, 1936. Serial No. 375,948. Published June 23, 1936. Class 4.

338,620. Shaving Cream. Kolynos Co., New Haven. Filed April 1, 1936. Serial No. 376,680. Published June 23, 1936. Class 4.

338,671. Chlorinated Phosphatic Detergent. Warner Chemical Co., New York. Filed April 23, 1936. Serial No. 377,561. Published June 30, 1936. Class 4.

338,721. Soap. American Hair & Scalp Institute, Los Angeles. Filed March 16, 1936. Serial No. 376,025. Published July 7, 1936. Class 4.

338,730. Moth Proofing Compound. Huntington Laboratories, Inc., Huntington, Ind. Filed April 23, 1936. Serial No. 377,620. Published July 7, 1936. Class 6.

338,760. Hand Soap, Bath Soap, and Shaving Soap in Bar and Cream Form. House of Wembdon, Inc., New York. Filed May 11, 1936. Serial No. 378,310. Published July 7, 1936. Class 4.

338,835. Hair Shampoo. Herman C. Vernick, Newark, N. J. Filed March 30, 1936. Serial No. 376,615. Published July 7, 1936. Class 6.

338,843. Cleaning Liquid for Telephones. Sanford Manufacturing Co., Chicago. Filed April 6, 1936. Serial No. 376,865. Published July 7, 1936. Class 4.

◆

Argentine Soap Market

The Argentine soap industry has an advantage in that many packing-house by-products are readily available. There are a number of large firms in the industry, not only the well-known foreign soap manufacturers with their local branch plants, but also the packing houses making soap as a side-line. The importation of soap is negligible, and largely confined to a few high quality lines. A number of well known American brands of soap are manufactured locally.

◆

Names Representatives

Pacific Vegetable Oil Corp., San Francisco, has announced a complete list of representatives in various parts of the country as follows: The Thompson Hayward Chemical Co. in Dallas and Kansas City, Mo.; George E. Moser & Son, Detroit, Marshall Dill, Los Angeles, and L. H. Butcher Co., Portland, Ore., and Seattle, Wash.

◆

Talks on Window Display

Dr. Miller McClintock, head of Harvard's Bureau for Street Traffic Research, spoke to members of the Drug, Chemical and Allied Trades Section of the New York Board of Trade at a luncheon meeting at the Hotel Pennsylvania, September 22nd. His topic was "Stopping Side-walk Traffic With the Drug Store Window."

WHAT OF THE METALLIC SOAPS?

When is a soap not a soap? When it's a metallic soap. A series of two articles beginning in an early issue of SOAP on the "Metallic Soaps" by Harold J. Silman, —a practical discussion of raw materials, manufacture, and uses of these first cousins to the detergent family.

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PERFUME SPECIALTIES FOR MANUFACTURERS OF

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DISINFECTANTS

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Four qualities in varying prices to fit your production budget.

Geraniol, pure
A closely fractionated standard quality.

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Specially purified. The best on the market.

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High quality. Suitable for better class products.

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All the excellent aromatic properties at a price suitable for inexpensive merchandise.

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No. 170
PORTABLE SOAP SPRAYER

TAKE THE RUB OUT OF SCRUBBING

Spray Soap or Cleaner
WITH
A Dobbins Superbilt
High Pressure
SOAP SPRAYER

The cleaning solution penetrates into the floor surface, cracks and pits that are not touched with brush or mop. The film of soap dissolves the dirt. Pick it up with a moist mop and you have a quick clean job.

Write NOW for Descriptive Circular

2 or 3 GAL. CAPACITY EASY TO CARRY

Dobbins Manufacturing Co.
Dept. B North St. Paul, Minn.

Raw Material Markets

(As of September 28, 1936)

NEW YORK—The soap raw materials market this period did not reflect any outstanding new developments. The unchanged situation in Spain continued to influence the olive oil market, with prices still going up. Quotations on soaps derived from olive oil also advanced further this period as soap makers found their stocks of oil running low and saw no immediate possibility of replenishing their supplies. The effect of the Spanish civil war on essential oils, however, has been lessening, and trading was on an easier basis. In some instances, as with rosemary and pennyroyal, prices hit a lower level. The generally declining prices were accounted for mostly by changes in replacement costs and were not regarded as indicating a steady trend downward. The coconut oil market became even firmer than it was last month, with the supply of copra very limited. Increased interest in babassu oil, with limited stocks, kept the market firm, with a ¾c advance this month bringing current quotations to 8¼c. New crop tea seed oil aroused some interest, but on the whole trading was quiet. Glycerine prices continued firm, with no special development in the market. An increased supply of crude glycerin on account of enlarged production of soap is being anticipated.

Oils and Fats

COCONUT OIL—With a scarcity of copra and an improved demand for coconut oil, the market continued to be firm. Copra was entirely nominal and Manila oil showed a net gain of about 1 per cent per pound since last month, the current level being about 5½ to 6c.

OLIVE OIL—Olive oil prices continued their skyward trend, striking a new high at $1.60 per gallon. This makes about an 85c increase per gallon since June 1st. With offerings for shipment small, quotations for all grades are nominal. Trading in foots was light.

PALM OIL—Palm oil went up about ½c this period, with current Sumatra prices being 5⅜c a lb. Buying interest increased through a firmer tallow market. Limited offerings restricted trading.

TALLOW—Increases in competing products held the tallow market firm. A succession of advances led to a closing price of 7¼c for city extra, which is ½c more than prices at the close of last month. Trading at the advanced price fairly well absorbed available offerings, and when the market closed producers had still higher ideas. Special tallow went up ⅜c. The tallow futures market has been steady, registering increases.

GREASE—The grease market has been strong in sympathy with rising tallow prices, with house grease being quoted at closing ⅜c higher than last month, at 6 to 6⅛c, and yellow and white greases ⅛c higher, at 6c and 6⅝ to 8⅜, respectively.

Perfuming Materials

GERANIUM OIL — Bourbon geranium oil went down 25c a lb. this period, being quoted now at $5.00 to $6.75, while Algerian oil remained firm.

ROSEMARY OIL—The caution shown in trading on account of the uncertainty of the Spanish situation was eased somewhat and leading suppliers went back to firm prices at a lower level. Rosemary dropped 8c a lb. to a price of 36-38c for technical and 40-42c for the U.S.P. grade.

ALMOND OIL—since France cannot get almonds from Spain and stocks have become very limited, the market for sweet true almond oil is well on its way up. Sweet almond oil is about 5c higher this period than last, being quoted currently at 70-72c.

CASSIA OIL—Demand for this oil was excellent and spot quotations were higher than last month, reversing the recent trend.

Miscellaneous

GLYCERIN—There has been no special development in the glycerin situation since last month, the market continuing firm. Crude buyers have better stocks and bidding is not as intense as it was several weeks ago. This grade is being offered only sparingly, producers having higher ideas of prices than refiners. Although the refined grades are not yet readily obtainable, production generally is increasing at a satisfactory rate. C. P. glycerine closed at 17½c to 19c, an increase of 2c over last month's closing prices. Dynamite also showed a rise of 2c, closing at 17½c to 19c.

ROSIN—Interest in rosin during the last period was fair and the market continued firm, retaining its recent gains. Foreign buyers were reported to be purchasing in Europe, where prices were lower. Mexican production is reported lower for August on account of heavy rains.

—— ♦ ——

Swift Promotes O. E. Jones

Swift & Co. have recently promoted O. E. Jones to the position of vice-president in charge of lard and vegetable oil refineries, cottonseed oil mills and gins. He has been connected with the company for twenty-four years.

—— ♦ ——

Rainbow Soap Co., formerly located in the Silvey Building, Atlanta, is now at 117 Edgewood Ave., N. E.

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In various grades to meet every requirement as to price

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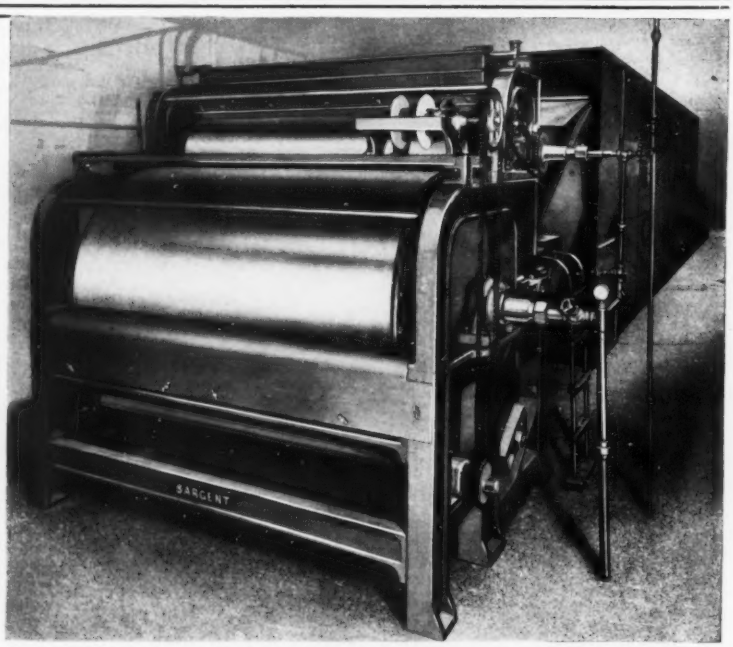

AS the title indicates, the Rolls are NEW and the entire machine is NEW, many valuable improvements having been perfected until this latest Sargent development is now one of the very finest Rolls obtainable.

To the soap manufacturer, the most important angle is to have a *thin, uniform chip* . . . readily accomplished by these new Rolls being expertly machined, ground and set. Finest grade of cast iron. Vari-speed controls on both Rolls insures easy adjustment . . . every part accessible. Drive improvements reduce the horsepower used. Changes made at a minute's notice. The Dryer is entirely re-designed. Its housing gives better insulation and cuts down steam consumption per hour. Other valuable changes have been made in the circulating and exhaust air systems . . . and all *fans* are *direct motor driven.*

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Raw Material Prices

(As of September 25, 1936)

Minimum Prices are for car lots and large quantities. Price range represents variation in quotations from different suppliers and for varying quantities.

Chemicals

Acetone, C. P., drums	lb.	$ .11	$ .12½
Acid. Boric, bbls., 99½%	ton	95.00	100.00
Cresylic, drums	gal.	.73	.75
Low boiling grade	gal.	.78	.80
Oxalic, bbls.	lb.	.11½	.12¼
Adeps Lanae, hydrous, bbls.	lb.	.16	.18
Anhydrous, bbls.	lb.	.17	.19
Alcohol, Ethyl, U. S. P., bbls	gal.	4.13	4.25
Complete Denat., SD 1,drums,ex.	gal.	.29	.34
Alum. Potash lump	lb.	.03¼	.03½
Ammonia Water, 26°, drums, wks	lb.	.02½	.02¾
Ammonium Carbonate, tech., bbls	lb.	.08	.12½
Bleaching Powder, drums	100 lb.	2.25	2.60
Borax, pd., cryst., bbls., kegs	ton	50.00	55.00
Carbon Tetrachloride, car lots	lb.	—	.05¼
L. C. L.	lb.	.07	.08½
Caustic, see Soda Caustic, Potash Caustic			
China Clay, filler	ton	10.00	25.00
Cresol, U. S. P., drums	lb.	.10	.10½
Creosote Oil	gal.	.12½	.13½
Feldspar (200 to 325 mesh)	ton	14.00	15.00
Formaldehyde, bbls.	lb.	.06	.07
Fullers Earth	ton	15.00	24.00
Glycerine, C. P., drums	lb.	.17½	.19
Dynamite, drums	lb.	.17½	.19
Saponification, drums	lb.	.14	.15
Soap lye, drums	lb.	.13	.14
Hexalin, drums	lb.	—	.30
Kieselguhr, bags	ton	—	35.00
Lanolin, see Adeps Lanae.			
Lime, live, bbls.	per bbl.	1.70	2.20
Mercury Bichloride, kegs	lb.	.71	.76
Naphthalene, ref. flakes, bbls.	lb.	.07¼	.07½
Nitrobenzene (Myrbane) drums	lb.	.09	.11
Paradichlorbenzene, bbls., kegs	lb.	.16	.25
Petrolatum, bbls. (as to color)	lb.	.02	.07¼
Phenol, (Carbolic Acid), drums	lb.	.14¼	.16
Pine Oil, bbls	gal.	.59	.64
Potash, Caustic, drums	lb.	.06¼	.06½
Flake	lb.	.07	.07¼
Potassium Carbonate, solid	lb.	.07¼	.09½
Liquid	lb.	.03½	.03¾
Pumice Stone, powder	100 lb.	3.00	4.00
Rosins (600 lb. bbls. gross for net)—			
Grade B to H, basis 280 lbs.	bbl.	7.25	7.25
Grade K to N	bbl.	7.25	7.27½
Grade WG and X	bbl.	7.35	8.15
Wood FF Spot	bbl.	6.77	7.80
Rotten Stone, pwd. bbls.	lb.	.02½	.04½
Silica	ton	20.00	27.00
Soap, Mottled	lb.	.04⅛	.04⅜
Olive Castile, bars	lb.	.23	.30
Olive Oil Foot	lb.	.11	.11½
Powdered White, U. S. P.	lb.	.32	.40
Green, U. S. P	lb.	.06½	.08
Tallow Chips, 88%	lb.	.07½	.08
Whale Oil, bbls.	lb.	.05	.06
Soda Ash, cont., wks., bags, bbls.	100 lb.	1.23	1.50
Car lots, in bulk	100 lb.	—	$1.05
Soda Caustic, cont., wks., sld	100 lb.	—	2.60
Flake	100 lb.	—	3.00
Liquid, tanks	100 lb.	—	2.25
Soda Sal., bbls.	100 lb.	1.10	1.30
Sodium Chloride (Salt)	ton	11.40	14.00
Sodium Fluoride, bbls	lb.	.07¼	.08¾
Sodium Hydrosulphite, bbls	lb.	.19	.20
Sodium Silicate, 40 deg., drum	100 lb.	.80	1.20
Drums, 52 deg. wks.	100 lb.	1.35	1.75
Tar Acid Oils, 15-25%	gal.	.21	.24
Trisodium Phosphate, bags, bbls	lb.	.03	.03½
Zinc Oxide, lead free	lb.	.06	.06¼
Zinc Stearate, bbls	lb.	.20	.22

Oils — Fats — Greases

Babassu, tanks	lb.	—	.08¼
Castor, No. 1, bbls	lb.	.10¾	.11½
No. 3, bbls	lb.	.10¼	.11
Coconut			
Manila, tanks, N. Y.	lb.	.06	Nom.
Tank, Pacific coast	lb.	.05⅜	.05½
Cod, Newfoundland, bbls.	gal.	.36	.38
Copra, bulk, coast	lb.	.0360	Nom.
Corn, tanks, mills	lb.	.09¾	Nom.
Cottonseed, crude, tanks, mill	lb.	.08⅞	.09
PSY	lb.	.10⅛	.10⅜
Degras, Amer., bbls.	lb.	.05½	.06
English, bbls.	lb.	.05¾	.06¼
Neutral, bbls.	lb.	.08½	.10½
Greases, choice white bbls., N. Y.	lb.	.06⅝	.08⅜
Yellow	lb.	.06	.06
House	lb.	.06	.06⅛
Lard, City	lb.	.12¼	.12½
Compound tierces	lb.	.12½	.12¾
Lard Oil,			
Extra, bbls.	lb.	—	.10¾
Extra, No. 1, bbls.	lb.	—	.09¾
No. 2, bbls.	lb.	—	.09¼
Linseed, raw, bbls., spot	lb.	.1010	.1070
Tanks, raw	lb.	.0950	.0970
Boiled, 5 bbls. lots	lb.	.1135	.1150
Menhaden, Crude, tanks, Balt	gal.	.27	Nom.
Oleo Oil, No. 1, bbls., N. Y.	lb.	—	.11
No. 2, bbls., N. Y.	lb.	—	.10½
Olive, denatured, bbls., N. Y.	gal.	1.60	Nom.
Foots, bbls., N. Y.	lb.	.09	.09¼
Palm	lb.	.04¾	.05⅜
Palm Kernel, casks, denatured	lb.	.05	Nom.
Peanut, domestic tanks	lb.	.09¼	Nom.
Red Oil, distilled bbls.	lb.	.10⅛	.11⅝
Saponified bbls.	lb.	.10⅛	.11⅝
Tanks	lb.	—	.09¼
Soya Bean, domestic tanks, N. Y.	lb.	.08⅜	.08½
Stearic Acid,			
Double pressed	lb.	.10	.11
Triple pressed, bgs.	lb.	.12¾	.13¾
Stearine, oleo, bbls.	lb.	.10¼	.10⅜
Tallow, special, f.o.b. plant	lb.	—	.06⅞
City, ex. loose, f.o.b. plant	lb.	—	.07¼
Tallow, oils, acidless, tanks, N. Y.	lb.	—	.09¼
Bbls., c/1 N. Y.	lb.	—	.09¾
Whale, refined	lb.	.0690	.0710

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CITRONELLOL
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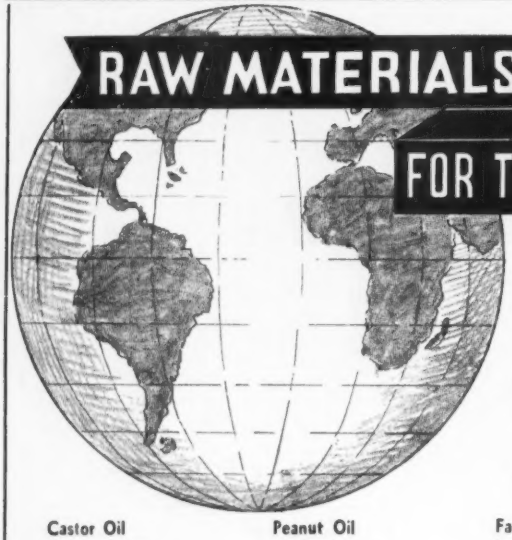

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Tallow
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(*As of September 25, 1936*)

Essential Oils

Almond, Bitter, U. S. P.	lb.	$2.00	$2.50
Bitter, F. F. P. A.	lb.	2.25	2.75
Sweet, cans	lb.	.70	.72
Anise, cans U. S. P.	lb.	.63	.65
Bay tins		1.05	1.25
Bergamot, coppers	lb.	2.35	2.50
Artificial	lb.	1.00	1.30
Birch Tar, rect. tins	lb.	.75	.80
Crude, tins	lb.	.14	.16
Bois de Rose, Brazilian	lb.	1.25	1.35
Cayenne	lb.	2.30	2.35
Cade, cans	lb.	.26	.28
Cajeput, native, tins	lb.	.45	.46
Calamus, tins	lb.	2.75	3.00
Camphor, Sassy, drums	lb.	13½	.14
White, drums	lb.	.14½	.15
Cananga, native, tins	lb.	2.30	2.35
Rectified, tins	lb.	2.60	2.65
Caraway Seed	lb.	2.00	2.25
Cassia, Redistilled, U. S. P.	lb.	.95	1.00
Cedar Leaf, tins	lb.	.90	.95
Cedar Wood, light, drums	lb.	.18	.20
Citronella, Java, drums	lb.	.31	.32
Citronella, Ceylon, drums	lb.	.23	.25
Cloves, U. S. P., tins	lb.	—	1.00
Eucalyptus, Austl., U. S. P., cans	lb.	.35	.36
Fennel, U. S. P., tins	lb.	1.05	1.10
Geranium, African, cans	lb.	5.25	6.75
Bourbon, tins	lb.	5.00	6.75
Hemlock, tins	lb.	1.00	1.05
Lavender, U. S. P., tins	lb.	2.75	7.25
Spike, Spanish, cans	lb.	1.05	1.40
Lemon, Ital., U. S. P.	lb.	1.75	2.50
Lemongrass, native, cans	lb.	.43	.45
Linaloe, Mex., cases	lb.	1.15	1.20
Nutmeg, U. S. P., tins	lb.	1.10	1.15
Orange, Sweet W. Ind., tins	lb.	2.30	2.35
Italian cop	lb.	2.35	3.25
Distilled	lb.	—	.90
Origanum, cans, tech.	lb.	.80	Nom.
Patchouli	lb.	5.00	6.00
Pennyroyal, dom.	lb.	1.65	1.75
Imported	lb.	1.60	1.85
Peppermint, nat., cases	lb.	2.35	2.60
Redis., U. S. P., cans	lb.	2.55	2.85
Petitgrain, S. A., tins	lb.	1.00	1.15
Pine Needle, Siberian	lb.	.90	1.10
Rose, Natural	oz.	5.25	22.50
Artificial	oz.	2.00	3.00
Rosemary, U. S. P., tins	lb.	.40	.42
Tech., lb. tins	lb.	.36	.38
Sandalwood, E. Ind., U. S. P.	lb.	4.80	5.50
Sassafras, U. S. P.	lb.	.75	1.25
Artificial	lb.	.35	.36
Spearmint, U. S. P.	lb.	1.85	2.00
Thyme, red U. S. P.	lb.	.85	1.25
White, U. S. P.	lb.	.80	1.35
Vetivert, Bourbon	lb.	10.50	11.00
Ylang Ylang, Bourbon	lb.	3.50	6.00

Aromatic Chemicals

Acetophenone, C. P.	lb.	$1.25	$2.25
Amyl Cinnamic Aldehyde	lb.	1.55	2.00
Anethol	lb.	1.05	1.10
Benzaldehyde, tech.	lb.	.60	.65
U. S. P.	lb.	1.20	1.30
Benzyl, Acetate	lb.	.56	1.00
Alcohol	lb.	.65	1.15
Citral	lb.	2.00	2.30
Citronellal	lb.	1.25	1.50
Citronellol	lb.	1.90	2.15
Citronellyl Acetate	lb.	4.50	7.00
Coumarin	lb.	3.10	3.30
Cymene, drums	gal.	.90	1.25
Diphenyl oxide		.70	1.00
Eucalyptol, U. S. P.	lb.	.50	.55
Eugenol, U. S. P.	lb.	2.00	2.50
Geraniol, Domestic	lb.	.75	2.00
Imported	lb.	2.00	3.00
Geranyl Acetate	lb.	2.00	2.50
Heliotropin	lb.	2.00	2.10
Hydroxycitronellal	lb.	3.50	9.00
Indol, C. P.	oz.	2.00	2.50
Ionone	lb.	3.25	5.50
Iso-Eugenol	lb.	3.00	4.25
Linalool	lb.	1.65	2.25
Linalyl Acetate	lb.	1.50	3.25
Menthol	lb.	3.50	3.60
Methyl Acetophenone	lb.	2.50	3.00
Anthranilate	lb.	2.10	2.75
Paracresol	lb.	4.50	6.00
Salicylate, U. S. P.	lb.	.40	.45
Musk Ambrette	lb.	4.20	5.00
Ketone	lb.	4.35	5.25
Xylene	lb.	1.25	2.00
Phenylacetaldehyde	lb.	4.80	8.00
Phenylacetic Acid, 1 lb., bot.	lb.	2.50	3.25
Phenylethyl Alcohol, 1 lb. bot.	lb.	4.00	4.50
Rhodinol	lb.	5.75	8.00
Safrol	lb.	.54	.57
Terpineol, C. P., 1,000 lb. drs.	lb.	.23	.25
Cans	lb.	.27	.30
Terpinyl Acetate, 25 lb. cans	lb.	.80	.90
Thymol, U. S. P.	lb.	1.40	1.50
Vanillin, U. S. P.	lb.	3.75	4.00
Yara Yara	lb.	1.30	2.00

Insecticide Materials

Insect powder, bbls.	lb.	.17	.18
Concentrated Extract			
5 to 1	gal.	1.25	1.30
20 to 1	gal.	4.20	4.40
30 to 1	gal.	6.15	6.45
Derris, powder—4%	lb.	.40	.42
Derris, powder—5%	lb.	.24	.48
Cube, powder—4%	lb.	.34	.37
Cube, powder—5%	lb.	.40	.42

Gums

Arabic, Amb. Sts.	lb.	.09¾	.10
White, powdered	lb.	.13	.14
Karaya, powdered No. 1	lb.	.09½	.10
Tragacanth, Aleppo, No. 1	lb.	1.75	1.80
Sorts	lb.	.30	.31

Waxes

Bees, white	lb.	.36	.38
African, bgs.	lb.	.24	.25
Refined, yel.	lb.	.28	.30
Candelilla, bgs.	lb.	.16	.17
Carnauba, No. 1	lb.	.46	.47
No. 2, yel.	lb.	.44	.44½
No. 3, chalky	lb.	.36	.37
Ceresin yellow	lb.	.36	.38
Paraffin, ref. 125-130	lb.	.04½	.04¾

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PRODUCTION SECTION

A section of SOAP devoted to the technology of oils, fats, and soaps published prior to Jan. 1, 1932, as a separate magazine under the title, *Oil & Fat Industries*.

Soybean Oil Soaps

THE use of hydrogenated as well as natural soybean oil for soap-making is increasing, yet the amount of published information on this subject is very meager. The statement which is sometimes made that coconut oil is an absolute essential in soap which is employed in waters having any degree of hardness is not correct, since soybean oil although containing no lauric acid, gives a soap of good lathering qualities which withstands hard water very well. A British make of soft soap intended for washing automobiles depends very largely on soybean oil. It leaves no film on the finish even when the automobile body is not entirely free from road dust and is washed with hard water, and does not require an excess of free alkali.

The lathering power of soybean soap is very little affected by concentrations of common salt up to 2 per cent, and lather is produced even at a concentration of 3.5 per cent salt. For this reason soaps containing soybean oil are in common use along the coast of China for bathing and laundering in sea water.

Comparative studies on the lathering capacity and stability of the lather of sodium soaps made from individual oils showed that soybean oil soap gives in distilled water a moderate amount of heavy lather composed of numerous small-sized bubbles, which sometimes persist for an hour. Castor oil soap was found to possess just the reverse property. A large volume of very light lather was formed, consisting of large-sized bubbles which disappeared in a few minutes. A soap manufactured from a mixture of soybean and castor oil possessed a higher lathering power, consisting of light but sufficiently resistant bubbles.

The lathering capacity of soap from hydrogenated soybean oil varies with the degree of hydrogenation. The specific volume of lather is at a maximum at an iodine value of 60-69. Hydrogenated soybean oil with this iodine value is recommended as the best substitute for beef tallow in the manufacture of hard soap. A bath soap manufactured from hydrogenated soybean oil by a company in Manchuria was found to have a good lathering capacity in hard water. The following acids have been found to be present in oil expressed from the Mammoth Yellow variety of beans: linolenic 2.2, linoleic 49.3, oleic 32, palmitic 6.5, stearic 4.2, arachidic 0.7 and lignoceric 0.1 percent. The iodine number of this oil was 128 and the saponification value 189.5.

Method of Saponification

It is somewhat difficult to saponify soybean oil and its incomplete saponification produces a soap susceptible to deterioration, showing yellow spots and having a disagreeable odor. These defects may be remedied by mixing with soybean oil suitable quantities of tallow, coconut oil, palm kernel oil, rosin, etc., which facilitate saponification. Soybean oil should not be used alone for commercial soap-making. By the addition of about 30 percent of coconut oil or tallow, a product of good quality and of a yellow or cream color may be obtained. On the average, 100 parts of soybean oil give 146-148 parts of curd soap.

The caustic soda lye used in saponification of soybean oil should not be over 8.5° Be. (5.5 percent Na OH). Boiling soybean oil is salted out by a caustic soda lye of this concentration or by a salt solution of 6° Be., which concentration lies between that of linseed and cottonseed oil. It shows that soybean oil is a real curd-soap fat. If a higher concentration of lye is used, the result will be a partial saponification combined with the salting-out effect. The particles of unattacked fat are covered with a film of salted-out soap which will inhibit further saponification.

The difficulties encountered in the saponification of soybean oil in industry are mainly due to the use of too high concentrations of caustic lye solutions. In case a steam-agitated soap kettle is used, the concentration of the lye solution can be 10° Be. (about 7 percent NaOH), because it will be sufficiently diluted by the condensed steam. A 5-7 percent caustic soda lye solution has to be used only in the beginning. After saponification is advanced, the second part of the caustic is added in a concentration of 16-18° Be.

For mixtures of soybean oil with other fats, the limit concentration of the lye solution can be much higher but should be determined for every case by direct experiment. If the mixture contains at least 33 percent coconut oil or palm kernel oil, a 25° Be. lye can be used. If the mixture contains over 50 percent of the oils mentioned, it is possible to start with a 30° Be. caustic lye and use the same lye concentration during the whole process. The required amount of NaOH is calculated theoretically, and to it an excess of 0.2-0.3 per cent is added to complete the saponification, as well as to prevent the hydrolytic splitting of the curd soap in the pan. At the start of the saponification usually one-third of the calculated amount of caustic is taken.

Use in Soft Soap

Soybean oil is particularly suitable for the manufacture of soft potash soaps because of its high iodine number and low content of solid fatty acids. The potassium soap of soybean oil is transparent, has a dark golden hue, and in quality and efficacy is generally superior to the potassium soap of linseed oil. Contrary to the formation of sodium soap, saponification proceeds very easily and the manufacturing process is quite simple. Soybean oil mixed with linseed oil is used to make "summer soap," a mixture containing 50-60 percent of soybean oil, and "winter soap," 30-35 percent. Saponification of 100 pounds of oil requires about 40 pounds of a 50° Be. caustic potash lye containing 6 pounds of potassium carbonate. To this, water is added until a concentration of 30° Be. is reached. The product obtained is resistant towards freezing, is clear, and sufficiently solid.

Soya Bean Fatty Acids

When free fatty acids from soybean oil are used for soap-making, saponification takes place very easily. A soda ash solution of 20-25° Be. is used and the fatty acids are poured in gradually and carefully with constant agitation. Ordinarily the amount of soda ash taken is from 2 to 3 percent lower than the amount theoretically required for complete saponification of the fatty acids, because if too much soda is used, the soap formed is of very unsatisfactory quality. It is also not possible to get 100 percent fatty acids, as some glyceride is always present. The latter cannot be saponified with soda ash. A caustic soda lye of 25-30° Be. with an excess of 0.5 percent of free alkali should be used towards the end of the saponification of the free fatty acids. Uncombined soda ash should not be present in the pan at the end of saponification and all the liberated carbon dioxide should be boiled out. A. A. Horvath. *Chemistry and Industry* **55**, 691-3 (1936).

Metal Cleaning Compounds

Metal cleaning enters into all phases of the metal industry. Alkali cleaning is the oldest and still the most popular type of metal cleaning. It is used in still tanks, both with and without electric current, and in the power type washing machine. The chemicals comprising these mixes are mainly alkalies, silicates and various soap compounds. The fundamental factors to be considered in any cleaning medium are as follows:

1. The solution must have wetting and penetrating power, so that dirt may be loosened from the metal being cleaned.
2. There must be sufficient colloids in the solution to maintain the dirt removed in suspension.
3. There must be a degree of alkalinity that will saponify any saponifiable grease.

Due to the almost infinite variety of lubricants used in the forming of metal, the selection of the correct cleaner is a job requiring not a little skill. Specially prepared cleaners and soaps are necessary to meet the modern demand for high-speed production, with uniform results and low labor costs. The use of the alcohol sulfates in the metal cleaning field is being watched carefully.

Alkali cleaners should be used in boiling water so that the mechanical action of the solution aids in cleaning. For easily tarnished material, not only the temperature, but the composition of the cleaning mixture must be so controlled to prevent corrosive action. Some cleaners leave a rust-resistant film on the metal. F. E. P. Griggs. *Canadian Chem. Met.* **20**, 258-9 (1936).

Rapid Soap Analysis

The following method can be applied to the analysis of bar soap, soap flakes, etc., for routine analysis where a detailed examination is not necessary. The method is quite reliable and quicker than most of the methods in general use.

Weigh 0.5-1.0 gram of soap into a 250 cc. conical flask and dissolve in 25 cc. of a mixture of equal volumes of denatured alcohol and *n*-butyl alcohol, warming on the water bath if necessary. Add phenolphthalein and 0.1 *N* white spirit-potassium hydroxide or hydrochloric acid from a buret until neutral. (*Ed. Note*—White spirit is the petroleum solvent referred to frequently as turpentine substitute.) From this titration the amount of free fatty acids or free alkali present is calculated.

Add soap indicator, made by dissolving 0.16 gram of Eosine and 0.04 gram of Xylene Cyanol FF in 100 cc. of equal volumes of denatured alcohol and *n*-butyl alcohol. The pH range of this indicator is 3.6-3.8. Titrate with 0.1 *N* white spirit-hydrochloric acid until the indicator changes from fluorescent red to non-fluorescent bluish-green. The titration to the soap-indicator end point gives the combined alkali. If the nature of the fatty acid is known, the amount of soap present in the sample can be calculated from the combined alkali in the usual way. T. M. B. Marshall. *J. Soc. Dyers Colourists* **52**, 299-302 (1936).

Hand Soap Powder

A soap suitable for removing oil from the hands contains dry soap powder, dry fibrous material such as sawdust, wood pulp and a binder. The binder may be the mucilaginous material in the wood pulp. Friedrich Werth. French Patent No. 795,466.

Soda Ash Saponification

USING the theoretical quantity of soda ash, saponification cannot be made to proceed beyond a reaction of 60 percent of the soda ash, added to blended stocks as used in regular soapmaking. An equilibrium is established at this point beyond which no further reaction occurs. A study of various oils to see how they behave individually when saponified with soda ash shows that tallow and unsaturated oils undergo the least change with the theoretical quantity of soda ash added. As an example of the behavior of a mixture, 46.5 parts of tallow, 15.5 coconut oil, 4 rosin, 3 linseed oil, and 31 of peanut oil were saponified with the theoretical quantity of soda ash. Only 45 percent saponification occurred. Further experiments indicate, however, that partial saponification can be carried out with soda ash and the process completed with the usual caustic soda.

The optimum efficiency was obtained by using 40 percent of the theoretical quantity of soda ash, as more of the soda ash is utilized in this proportion than in any other. The process, as it was carried out on a small scale, is as follows: The oil charge is mixed with an equivalent quantity of water. The required amount of soda ash is dissolved in water to form a nearly saturated solution (about 12 percent). The oil charge is boiled and to it small portions of the soda ash solution are added. Saponification starts in the normal manner with the formation of an emulsion. Addition of soda ash should be gradual, taking care that the medium does not get too thick or too thin. Water can be added if necessary.

During the progress of saponification, swelling of the mass takes place with the evolution of carbon dioxides, so that care must be taken not to let the kettle boil over. The addition of alkali can generally be completed within an hour or two, followed by further boiling. In one experiment with 40 per cent soda ash, 9 hours boiling gave 78.5 percent reaction of the soda ash as against 76 percent in 7 hours, 69.9 in 5 hours, and 69.5 in 4 hours. The remaining unsaponified oils and fats can be saponified with caustic soda. In this way about a third of the caustic soda is replaced by soda ash. The soda ash which fails to react can be used up by adding the rosin charge after the completion of the process and also by the use of the calculated quantity of free fatty acids obtained by any of the usual processes of fat splitting. The charge can then be finished by the required quantity of caustic soda.

The recovery of glycerine is not affected in any way by the process. The lye at the end contains all of the glycerine just as in the ordinary process of saponification with caustic soda. No charring or adverse coloring of soap or lye takes place.

If 100 percent, that is the calculated equivalent quantity of soda ash is used, 60 percent of this reacts, necessitating the addition of 40 percent of free fatty acids for the utilization of all of the soda ash. The remaining 40 percent of glycerides are saponified with caustic soda. It is believed that by following this general procedure, the process can be applied in the regular soap-boiling practice. R. L. Datta and Ashutosh Das. *Soap, Perfumery and Cosmetics* **1936,** 451-3.

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Fat Splitting with Phosphorus

It is believed that the elaidinization of oleic acid is due to the action of free phosphorous or free sulfur formed under the usual conditions of experiment, rather than to the action of particular modifications of phosphorous or sulfurous acids. When oleic acid was heated with red phosphorus in a sealed tube at 200-20°C. in the presence of water, 60-70 percent of the oleic acid was converted into elaidic acid. This change does not occur in the absence of water. The usual sources of stearic acid such as tallow, bone fat, and palm oil contain considerable amounts of oleic acid glycerides. Since the yield of solid fats is important for the stearin industry, the above observations on the conversion of oleic into elaidic acid led to the study of the behavior of fats when heated with sulfur and phosphorus in the presence of water.

Olive oil, palm oil, beef tallow and beef bone fat heated 3-4 hours with 1 percent of sulfur or 3 percent of phosphorus in the presence of 50 percent water in sealed tubes at 220°C., were almost completely decomposed into free acids and glycerine. The fatty acid mixture contained much more solid acids than the mixture obtained by saponification with bases and treatment of the soap with mineral acids. That the increase in solid acids was due to the conversion of oleic into elaidic acid was best shown by the iodine numbers of the solid acids.

While the acids obtained by the sulfur process have in the liquid state the same or even a somewhat deeper yellow color than the original fat or oil, the acids obtained with red phosphorus are almost colorless when liquid and snow-white when solidified. The phosphorus has a bleaching action on the acids. This bleaching is to be ascribed to the strongly reducing medium in which the reaction is effected,—to the formation of phosphine, hypophosphorous and phosphorous acids. Because of their purity, the acids so obtained are admirably adapted to the manufacture of stearin, soaps, etc., without a preliminary distillation. G. Rankov. Ber. **69B,** 1231-8 (1936).

Shipping Tallow Liquid

Tallow is being transported in bulk in the liquid condition. For example, 265 tons, or about 65,000 gallons were recently conveyed in this manner by means of insulated tank trucks at a temperature of 150° F. from Stanwell, England, to a ship in port, a distance of about 25 miles. Ordinarily, tallow would be in the solid state and such a consignment would necessitate a considerable amount of handling. In addition, each barrel would have to be weighed, painted and stencilled on both heads. In the liquid state all these operations were avoided; the tallow was simply drawn from the storage tank into the tank trucks, conveyed to its destination and pumped out by means of pumps attached to the trucks. In this case the destination was the motor vessel Britannic, which carried the tallow in a heated tank from England to America. This was the first occasion for this kind of bulk transportation of a normally solid substance, held in the liquid state, and conveyed from England to America. The saving on barrels, freight, handling and re-liquification gives the new method considerable advantage. *Chemical Age* **35,** 161 (1936).

Sediment in Oils

Standard methods for the estimation of sediment in oils were found time-consuming and inaccurate. A modification of the standard American method is based on the use of a centrifuge and gives the actual content of solid sediment within 25 minutes. The determination is carried out in a special 25-cc. sling tube, whose bulbous top is constricted in the center to a 1-cc. graduated tube 3 cm. long, terminating in a 3-cc. globe. The tube is charged with 3 cc. of saturated calcium chloride solution in 10 percent hydrochloric acid, 10 cc. of the oil sample and 10 cc. of acetone. It is shaken and allowed to settle for 2-3 minutes. If the sediment layer is below the graduated part of the tube, it is brought to the required level with a few drops of the calcium chloride solution. The whole is then centrifuged for 15 minutes. The sediment volume multiplied by 6.6 gives the percentage of sediment. The presence of water does not affect the determination in flaxseed and cottonseed oils, but gives high values for sunflower oil. E. A. Mirer. Vsesoyuz. Nauch.-Issledovatel. Inst. Zhirov, Analysemethoden in der *Oel- u. Fettind.* **1936,** 62-86.

Clay in Soaps

To determine clay in soaps, dissolve 1-2 grams of soap in 40 cc. of 96 percent alcohol in a weighed sling tube, centrifuge at 2000 r.p.m. for 2-3 minutes, pour off the alcohol from the precipitate and repeat the operation once or twice. Wash the precipitate in the tube by centrifuging with 1:1 alcohol-ether mixture and then with ether, and dry at 115-20° for 10 minutes. In the presence of soda ash or sodium silicate fillers, extract the sample with 60-70 percent alcohol and proceed as above. The determination of soaps containing sodium silicate can be improved by treating the residue after extraction with 10 percent sodium hydroxide solution. M. T. Bol'shakova. Vsesoyuz. Nauch.-Issledovatel. Inst. Zhirov, Analysemethoden in *der Oel- u. Fettind.* **1936,** 108-18.

Soap Sheen

A glaze which gives soap the appearance of having been polished is due to a very smooth surface. This is promoted by quick cooling of the soap. Washing soap with hot water just before it goes into the press results in a beautiful sheen. The result can be obtained by passing a cloth moistened with hot water over it. *Seifensider-Ztg.* **63,** 540 (1936).

Liquid Soap Clarification

IN order to shorten the period of storage necessary for the clarification of liquid soaps, an addition of one percent of freshly precipitated aluminum hydroxide is made. Instead of having to stand for 24 days, the soap will be clear in two days, so that it is then ready for sale. Soaps to be used for textile purposes, if treated in this way, do not have to undergo subsequent filteration.

Freshly precipitated aluminum hydroxide is prepared as follows: A hot concentrated solution of crude aluminum sulfate is treated with stirring, with 10 percent ammonium hydroxide (sp. gr. about 0.96), until no more gelatinous white precipitate is formed. Let settle and pour off the supernatant fluid. Stir the precipitate 2 or 3 times with hot water and discard the washings each time. Transfer the well-washed precipitate to a cloth and squeeze out excess water. The material thus obtained is suitable for addition to liquid soap with efficient stirring.

Formulas for liquid soap for general purposes are as follows:

10 percent Soap

	Parts by Weight
Coconut Oil	21
Caustic Potash, 50° Be.	10
Distilled Water	168

20 percent Soap

	Parts by Weight
Coconut Oil	28
Olive Oil	14
Caustic Potash, 50° Be.	20
Distilled Water	138
Sugar	5

Liquid laundry soaps containing organic solvents are made as follows:

A.

	Parts by Weight
Caustic Potash, 50° Be.	26.5
Coconut Oil	50
Distilled Water	120
Hexalin	20

B.

	Parts by Weight
Coconut Oil	25.5
Soybean Oil	21
Hexalin	30
Carbon Tetrachloride	20
Caustic Potash, 50° Be.	21
Distilled Water	300

Small proportions of other additions may be made, such as Turkey red oil, turpentine etc. *Allgemeine Oel-und Fett-Ztg.* **33,** 318-21 (1936).

Products and Processes

Fatty Acid Process

The principal recent improvements in processes of saponification of neutral fats and the distillation of fatty acids consist of the construction of autoclaves capable of withstanding high pressures, the use of carefully purified materials and the use of low distillation temperatures with as small a difference as possible between the heating agent and the liquid acids in the still. E. Paul Zwicker. 15me Congr. chim. ind. **1936,** 151-4.

Wetting Agent

An amine containing at least one free hydrogen joined to nitrogen and at least one aliphatic radical of high molecular weight is made to react with a polycarboxylic compound so that the amide formed contains at least 1 carboxyl group intact. The sodium salt of oleylmethyloxamic acid is an example of this type of wetting agent. I. G. Farbenind. A.-G. French Patent No. 795,662.

Fat Purification

Oils and fats are freed from nonoleaginous impurities by treatment with small proportions of phosphoric acid and cellulose, added simultaneously or in turn, or with a product obtained by treating cellulose with phosphoric acid An adsorbent earth is preferably added also. Harburger Oelwerke Brinckman & Mergell. German Patent No. 631,224.

Sulfated-Chlorinated Oils

Highly stable products are obtained by chlorinating neutral fats, fatty acids or similar substances containing at least 10 carbon atoms, and sulfonating the products. The resulting sulfonation products may be washed, purified, neutralized, etc., by the usual methods. The starting materials may be condensed with alcohols, thioalcohols, phenols or carboxylic acids before chlorination. In an example, castor-oil fatty acid is converted to the acid chlorine by treatment with phosphorus trichloride. This is then treated with sulfuric acid and the product neutralized with caustic soda to give a bright yellow oil of good stability and strong wetting qualities. Oranienburger Chemische Fabrik A.-G. German Patent No. 625,637.

Hot Soap in Cartons

Several difficulties were encountered when attempts were made to run hot soap directly into cartons. Hot yellow soap was led into self-supporting cartons which were allowed to cool and harden in the air. The main troubles were with the cartons. Waxed cartons, as well as those with rough interiors, stuck to the soap. A smooth interior came away fairly easily and left a clean surface, which in the case of a neutral soap had a silky appearance. With the ordinary foldable carton, the corners of the soap became so sharp and horny as to be uncomfortable to use. A carton with rounded corners does much better. The carton must have close-fitting joints to prevent leakage, but it still must be easy to open. In spite of all the difficulties, it seems reasonable to believe that soap filled hot into cartons has a future. A Hugh Finlay. *Soap, Perfumery and Cosmetics* **1936,** 484.

Sulfated Wool Detergent

Mixtures of high molecular alcohols and the oxidation products of high molecular hydrocarbons are treated with a sulfonating agent and the aqueous solution of the neutralized sulfonation mixture extracted with low-boiling hydrocarbons or chlorinated hydrocarbons with the addition of low molecular alcohols or acetone. For example, the mixture obtained by oxidizing hard paraffin is saponified with aqueous alkali and the separation products removed by extraction with benzene. The benzene is evaporated off and the remainder sulfonated by chlorosulfonic acid. The product is neutralized by caustic soda and diluted with alcohol. The sulfonation products are then extracted by benzene. The latter is evaporated off leaving a product with good wool-washing qualities. I. G. Farbenind. A.-G. German Patent No. 626,521.

Sulfated Alcohols

One or more double bonds in resinic acids are hydrogenated and the COOH groups are transformed to CH_2OH groups. The alcohols thus obtained are sulfonated under moderate conditions to give alkylsulfuric esters of high molecular weight which serve as cleansing agents. I. G. Farbenind. A.-G. French Patent No. 796,059.

Refractive Oil Determination

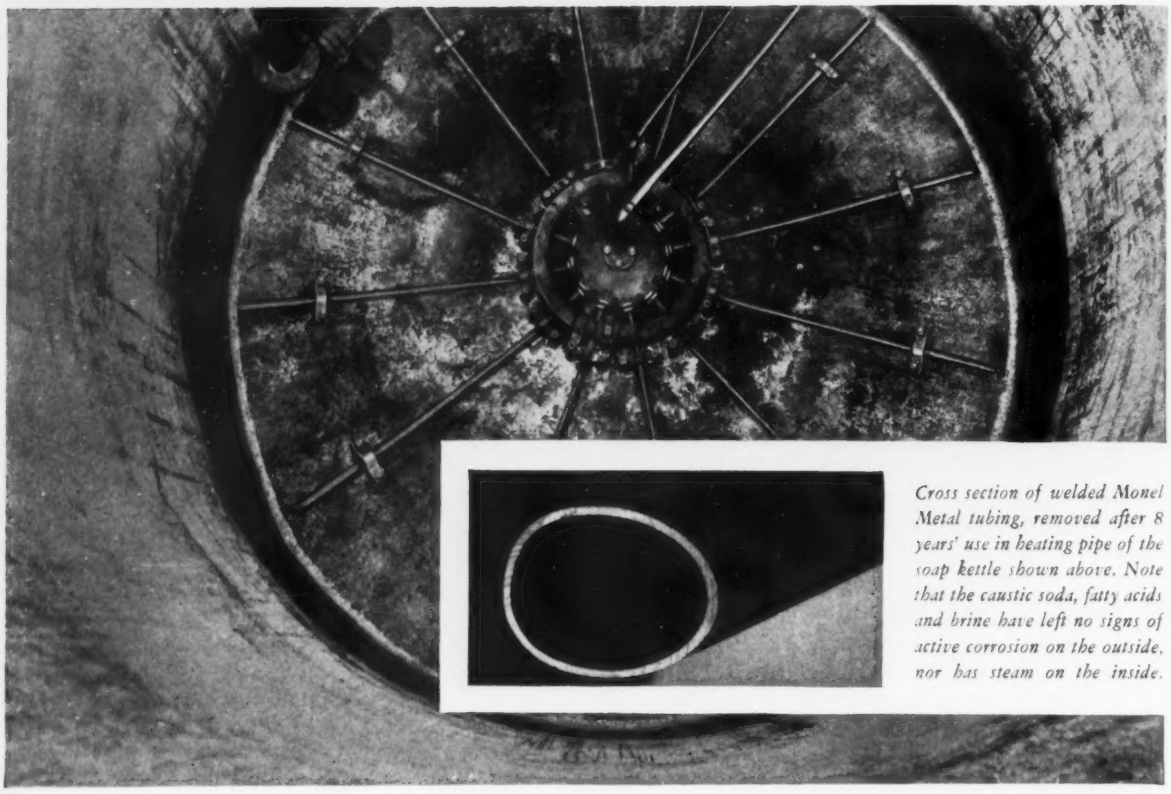
To determine oil in seeds and oil cake refractometrically, digest 1 gram of ground seeds with 35 cc. of sulfuric acid (d. 1.58) and 2 cc. of isoamyl alcohol in a water bath at 65° C. for 10-45 minutes. Centrifuge for 10-15 minutes. Shake with 2 cc. of petroleum ether boiling at 40-60° C. and having a refractive index of 1.3798. Examine the extract in the Abbé refractometer at 20° C. Determinations of sunflower, cottonseed, hemp and flaxseeds can be made in ½-1 hour with an accuracy of 0.3-0.5 percent. With the use of an American refractometer of the Abbé type the accuracy is increased to 0.05 percent. P. Z. Zaichenko and V. P. Rzhekhin. Vsesoyuz. Nauch.-Issledovatel. Inst. Zhirov, Analysemethoden in der *Oel- u. Fettind.* **1936,** 31-60.

Wetting Agents

Wetting agents are produced from high-molecular nonaromatic hydrocarbons by treatment with aqueous solutions of alkalies or ammonium hydroxide, and the unsaponifiable constituents separated as follows. The oxidation products are first dissolved in a solvent insoluble in water; this solution is then treated with an aqueous solution of alkali hydroxide or

What did THIS SPIDER catch in 12 YEARS?

Interior of one of six soap boiling kettles showing Monel Metal steam spider and pipes, legs, clamps, fittings, comprising heating arrangement for this soap kettle at the plant of Lanman & Kemp—Barclay & Co., Morsemere, N. J. Note that swing suction line and swing pipe are also Monel Metal. Equipment fabricated by Wurster & Sanger, Inc., Chemical Engineers, Chicago, Ill.



Cross section of welded Monel Metal tubing, removed after 8 years' use in heating pipe of the soap kettle shown above. Note that the caustic soda, fatty acids and brine have left no signs of active corrosion on the outside, nor has steam on the inside.

No corrosion, no rust, no work for the repair man... it's MONEL METAL

DOWN at the bottom of the boiling kettle is a swell place for a heating spider to pick up rust and corrosion. Inside those pipes, live steam . . . on their outside, caustic soda, fatty acids, and salt. Small wonder then, that spiders and heating coils are a constant source of heavy expense for repairs and replacements.

But not when they're made of Monel Metal. 8 *years after* the job pictured here was installed, we secured a cross-section of one of its pipes (shown above). Look at it for yourself. 8 years of handling those corrosives have left it unimpaired. No corrosion that can be measured. No pitting. Monel Metal *can't rust* . . . so you'd find no rust if this pipe were 80 years old instead of 8!

And that . . . was 4 years ago. Today these pipes . . . and their legs, clamps, and fittings, all Monel Metal too . . . have given 12 years of trouble-free service. It's a safe prediction that this heating spider will give at least twice over the same kind of service. But take the record as it stands today: 12 years of service, free from repair or replacement costs, spell P-R-O-F-I-T.

Monel Metal's strength and toughness surpass those of mild steel. And when you come to the equipment which makes your fine toilet soaps and shaving soap, Monel Metal's high corrosion resistance offers an added advantage besides durability . . . it bars out the metallic contamination which is so often the cause of off-colors and tainted perfumes.

So it's easy to see why the smart soap maker uses this high Nickel alloy wherever soap comes in contact with metal . . . in crutcher parts, plodder hoppers, mixer blades, and dies, for instance.

The pipes in this installation are of welded Monel Metal. You can also get Monel Metal in seamless tubing; and for large diameter pipe sections, in centrifugal castings. Ask us for a schedule of Monel Metal tubing, and for the name of the nearest fabricator of Monel Metal. And write today for your FREE copy of our bulletin, "*Nickel and Monel Metal in Soap Manufacture.*"

THE INTERNATIONAL NICKEL COMPANY, INC.

67 WALL STREET NEW YORK, N. Y.

Monel Metal is a registered trade-mark applied to an alloy containing approximately two-thirds Nickel and one-third copper. Monel Metal is mined, smelted, refined, rolled and marketed solely by International Nickel.

carbonate or ammonium hydroxide; the aqueous layer is separated and contains the saponified constituents. This layer is further purified by extraction with the same or a different solvent immiscible with water. The soap solution may be evaporated to dryness. As an example, hard paraffin is oxidized with air at 120-150° C. with potassium and manganese palmitate as catalysts. The product is mixed with benzine, alcohol and water and heated with soda. After allowing the layers to separate, the aqueous layer is removed and extracted with benzine. It is then evaporated to dryness to give a colorless odorless powder of high foam-forming and washing capacity. I. G. Farbenind. A.-G. German Patent No. 627,808.

Health Muds in Soap

Naturally occurring salt mixtures such as those found in the waters or muds at health spas, are claimed to be beneficial when incorporated into soap. The oils recommended for making such soaps are coconut, palm kernel, castor, babassu oil or ukuhuba fat. For people with dry skin, the soap should be used in conjunction with a fatty cream. An example of such a natural salt mixture contains about three-fourths ordinary salt and one-fourth potassium, lithium, ammonium, calcium, magnesium, strontium and iron chlorides, sulfates, bromides, bicarbonates, arsenates and silicates. Karl Pfaff. *Soap, Perfumery and Cosmetics* **1936,** 454-7 (1936).

Whale Oil Soft Soaps

Soft soap may be made with whale oil, which however, must either be deodorized or hardened before it can be used for a soap to be used as a detergent. If deodorized oil is used, the original odor sometimes returns during the washing process. A perfume such as benzaldehyde may be used to cover this up. If hardened whale oil is selected, the objectionable odor does not return. Such soft soaps lather well, are stable and of good consistency. Hardened whale oil can very well be combined with soybean oil in a proportion of 2 parts of the former to 3 parts of the latter. White soft soap pastes can be prepared from distilled whale oil fatty acids, distilled tallow fatty acids, and lard fatty acids. These are saponified with a mixture of ammonia, potash, and caustic soda.

Extraction of Oils

The influence of temperature on extraction of oils from seeds is important. Physically, a rise in temperature brings a decrease in viscosity and surface tension, making it easier to extract the oil. Chemically, it is important insofar as the coagulation of proteins by means of heat is an irreversible reaction and solid derivatives of the original protein are formed. The reaction which takes place when heat is applied consists first of a breaking down the protein, and secondly, coagulation of the decomposed matter. The protein molecules unite with other types of matter by both adsorption and chemical reaction. The decomposition brought about by heat on the surface cells of seeds is wholly different from that in internal cells. The presence of a certain amount of moisture is absolutely essential in order for the decomposition to take place. R. Heublum & H. Japhe. *Allgem. Oel- u: Fett-Ztg.* **33,** 96-103 (1936).

Gravimetric Iodine Number

To determine iodine number gravimetrically by the absorption of bromine vapor, weigh the sample of oil or fat spread as a thin layer in the bottom of a glass container, or spread on filter paper. Take care to remove the solvent completely before weighing. Expose to bromine vapor for 15 minutes to 3 hours, heat at 100° C. for 30 minutes to drive off free bromine, and again weigh on a microbalance. The difference is the amount of bromine taken up. A simple calculation gives the iodine number of the material. The method is consistent and reliable. Hermann Wollschitt. Arch. exptl. *Path Pharmakol.* **179**, 260-5.

Rosin Soap

A rosin soap of maximum concentration but without containing free rosin is made by passing a caustic alkali solution over rosin at a temperature slightly below the melting point of the rosin. Leon A. Barthelemy. French Patent No. 795,765.

Bushaie Oil

"Bushaie," an oleaginous seed of Kivu, contains in its kernel 65 percent of fat on a dry basis. The clear, odorless, bitter, maroon-colored oil extracted with low-boiling petroleum ether has the constants: d_{15} 0.9156, n_{20} 1.4708, acid value 7.41, saponification value 182.8, Wijs iodine number 83.39 and unsaponifiable matter 0.53 percent. The mixed fatty acids contain approximately 9.3 percent of saturated and 90.7 percent of unsaturated acids. The unsaturated acids consist almost wholly of oleic acid. The saturated acids contain an acid melting at 80°C., which seems to be a C_{24} acid, and an acid melting at 59°C., which is probably palmitic acid. L. Adriaens. *15me Congr. chim. ind.* **1936,** 132-8.

Study Heat on Oils

The effect of heat on aldehyde formation in soybeam oil, completely hydrogenated soybean oil, methyl laurate, lauric acid and glycerine, was studied. The samples were sealed in glass tubes and some kept at room temperature and some at 150° C. All of the materials showed rapid ketone formation but no epihydrinaldehyde was formed except after heating for 27 hours. Lauric acid and its methyl ester reddened Schiff's reagent the more strongly the more they were heated. Epihydrinaldehyde was formed in methyl laurate when exposed to mercury light but not when merely heated. *Margarine-Ind.* **28,** 43-4.

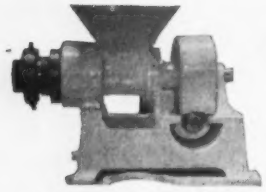
Bleaching Agents

Bleaching and washing agents contain a mixture of per compounds, salts of phosphoric acids poorer in water than orthophosphoric acid, and difficulty soluble and colorless stannic compounds. Henkel & Cie. G.m.b.H. French Patent No. 45,887.

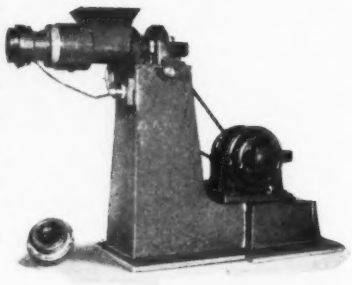
HOUCHIN MACHINERY CO. HAWTHORNE, N. J.

PLODDERS

With our No. 90 combination Plodder sample soaps can be made without milling the soap. The cakes will be compressed equal to the larger machines. This machine is also equipped with our new electric heater and forming plate holder.

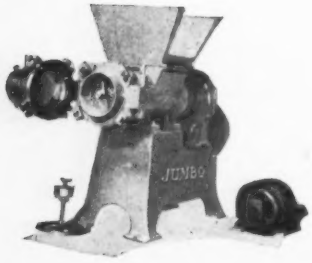


2½" Laboratory Plodder
No. 90B
1½ outlet. Good for cakes up ½" x 1⅛" 1/3 H.P.



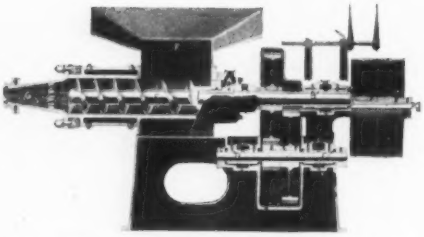
No. 90 Plodder
Made in two sizes 4" and 6"
2¾" outlet. Good for cakes up to 4 oz. 1" x 2" x 3".
MILLESS METHOD

Electric Heater and
Forming Plate Holder
made to fit all plodders.

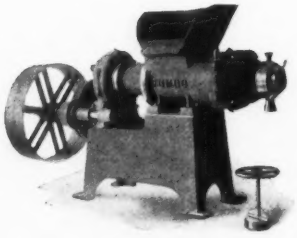


No. 92B
Combination Plodders made in two sizes 8" and 10"
MILLESS METHOD

PLODDERS
PRODUCE RIBBONS
SAME AS MILLS

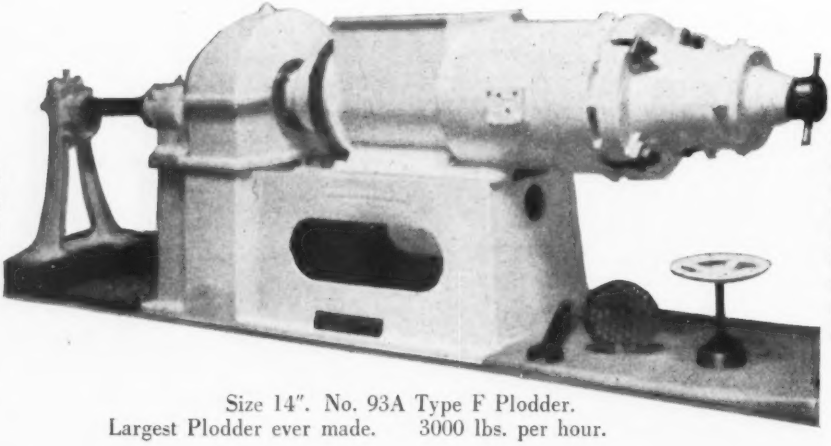


Extra Heavy Type F Plodder No. 93 made in two sizes 8¾" and 12".



No. 92
Standard Finishing Plodder made in two sizes 8" and 10"
gear drive.

All gears in our Plodders run in oil tight cases.



All Bearings in our Plodders are bronze lined. The Bearing back of the screen has oil sealed ring to prevent oil from getting in the soap.

Size 14". No. 93A Type F Plodder.
Largest Plodder ever made. 3000 lbs. per hour.

Cleaning Composition

Cleansing or polishing compositions are obtained by heating or fusing tricalcium phosphate with soda or another alkaline salt in the presence or absence of silica. Kali-Chemie A.-G. German Patent No. 630,314.

Wood Polish

A polish for marble, wood, etc., contains 200 parts of linseed oil, 200 of petroleum oil and 1000 of sawdust or fine cork residues. Henry G. Debonniere. French Patent No. 796,186.

Increasing Emulsifying Power

The emulsifying properties of oils, fats and waxes are enhanced by adding to them esters of propyl alcohol, isopropyl, butyl or iso-butyl alcohol and aliphatic monocarboxylic acids containing not more than 8 carbon atoms. Thus, iso-propyl valerate is added to castor oil together with gum arabic and tragacanth. Similarly iso-butyl propionate is added to a fused mixture of wax and wool fat. In both cases an aqueous emulsion is readily formed from the product. Siegmund Frommer. German Patent No. 626,880.

Sulfonation Process

The sulfonation of aliphatic carboxylic acids of high molecular weight and their esters, such as those of castor oil, coconut oil and fish oil, is carried out to a high degree in 3 or more steps, using sulfonating agents of energy increasing from step to step and preferably increasing also in amount. Hansawerke Lürman, Schütte & Co. French Patent No. 796,463.

Iodine Number

Ionizable iodides retard the addition of iodine to oils. Mercurous iodide, owing to the lowering of iodide concentration, accelerates the reaction. The ratio of the hydriodic acid formed and iodine bound is not constant, but varies with time. This ratio is considerably lower in the experiments with hydriodic acid, sodium iodide and barium iodide for equal time intervals than that obtained in the experiments with alcoholic iodine or a solution containing mercurous iodide. It can be concluded from the change of the ratio HI:I that hydriodic acid is formed not only by the hydrolysis of iodide, but also by the hydrolysis of diiodide addition products of the reaction. The same processes are anticipated in the rapid method of Margosches. It has been found by these experiments that the diiodides give up most of their iodine under the influence of light or after the evaporation of the solvent (carbon tetrachloride in this case). N. Ganchev. *Ann. univ. Sofia V. Faculte d'agron. Sylviculture* **13,** 340-65.

Metaphosphate Water Softener

A water softener consists of sodium metaphosphate in the form of anhydrous amorphous flakes of 0.001 inch in thickness. These are produced by pouring the molten substance between oppositely revolving rolls and congealing the thin ribbon formed. Victor Chemical Works. Canadian Patent No. 359,761.

Light Aids Fat Oxidation

In the presence of air, light is the most powerful accelerator of oxidation of fats stored at a low temperature, while moisture and heat follow in the order given. A vacuum may retard oxidation but will not prevent it. George R. Greenbank. *Oil & Soap* **13,** 140-4 (1936).

Olive Oil Extraction

A better quality of olive oil is obtained with the solvent method of extraction if the olives are not dried before extraction. By this method 2 percent of the oil remains in the residue. Chr. Kerkhoven. *Ole, Fette, Wachse, Seife, Kosmetik* **1936,** 7-8.

Sulfated Emulsifying Agents

New dispersing and emulsifying agents consist of the sulfated condensation products of equi-molar quantities of the naturally occurring fatty acids in coconut oil and monoethanolamine. John W. Orelup. Canadian Patent No. 360,000.

Soap Pigment Color

A natural mineral of suitable color is incorporated with the fat charge before and during saponification in the making of soap. A. A. J. G. Wautie. Belgian Patent No. 412,146.

Alcoholic Soap

Soap stock is worked up by completely or partly drying *in vacuo* and treating with an aqueous solution of alcohol and salt. The solution may also contain acid. By this means an alcoholic soap solution is separated practically free from impurities. *Metallgesellschaft A.-G.* German Patent No. 625,606.

Preserving Fats

Fat, especially pork lard, is made to keep by adding 2-10 percent of hydrogenated sesame oil. Industrial Patents Corp. German Patent No. 628,690.

Fat Extraction Solvent

Symmetrical dichloroethane is a suitable solvent for the extraction of oils and fats. Marcel Pourbaix. 15me Congr. chim. Ind. **1936,** 567-73.

Butyric Acid Number

To determine the butyric acid number for small amounts of fatty acid, the following modification of the Grossfeld method is given: Weigh 500 mg. of fat in a 50-cc. Erlenmeyer flask, add 1 cc. of glycerol (d. 1.23), 0.2 cc. of potassium hydroxide solution (750 grams per liter) and 2 grains of pumice stone. Heat the mixture gently until it is clear, pipet in 25 cc. of saturated potassium sulfate solution while shaking at room temperature, add 0.5 cc. of 1:3 sulfuric acid, 1 cc. of coconut-soap solution and a little infusorial earth. Filter, pipet 20 cc. into a 50-cc. flask, add 5 cc. of water and distil 16 cc. into a 50-cc. graduate. Pour the contents of the graduate into a 100-cc. Erlenmeyer flask containing 5 cc. of water and 2 drops of phenolphthalein solution made just pink with 0.01 *N* alkali. Titrate to a pink endpoint. F. Th. van Voorst. *Chem. Weekblad* **33,** 5-8 (1936).

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Chemistry of Laundry Materials, by D. N. Jackman. A new book for the laundry operator, containing valuable information on the chemistry of laundry materials. Discusses alkalies, soaps, bleaches, starches, also the newer detergents, synthetic soaps, etc. 230 pages $2.50.

The Chemical Formulary, by H. Bennett. This latest edition carries 5,000 formulae all different from those appearing in the first and second editions. 5½ x 8½. 550 pages. Price. $6.00. Copies of Vols. I and II are also available.

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271—Diesel Engine

Ingersoll-Rand Co., New York, has recently announced its Type S Diesel Engine, an improved design of the vertical, 4-cycle, single-acting, solid-injection type, designed to run at medium speeds and built for heavy-duty continuous service. It is made in sizes from 150 to 460 hp. Copies of a 24-page bulletin describing this engine available through *Soap*.

272—Mixers

Mixing Equipment Co., Rochester, has recently introduced a new 1/30 hp. laboratory mixer, new "Lightnin'" portable explosion resistant mixers, and a new unit for fixed application on large tanks. Copies of a 23-page two-color catalog describing their complete line of mixers are available.

276—Tablet Presses

Kux-Lohner Machine Co., Chicago, has just issued a folder describing its complete line of single punch and automatic tablet presses for many industrial uses. Copies will be sent on request.

277—Process Equipment

Edge Moor Iron Works, New York, has just issued a new bulletin describing their special stainless steel, aluminum, and monel metal equipment for the process industries. Copies available.

278—Price List

Polak's Frutal Works, Inc., New York, has just issued a new price list covering quotations on its line of essential oils, perfuming materials, and flavors. Copies available.

279—Price List

Aromatic Products, Inc., New York, has just issued a new price list covering their line of aromatic chemicals. Copies available.

280—Lubrication Booklet

E. F. Houghton & Co., Philadelphia, have just issued a 32-page illustrated booklet containing new pointers on lubrication to protect intricate, high-speed modern machinery. Copies are offered.

281—Floor Maintenance

T. F. Washburn Co., Chicago, announce that the new 1937 Modern Floor Maintenance Manual will be ready about the middle of October. It will be fully illustrated and more complete than the 1936 edition. It will cover, in addition to standard items, the new developments which the company has made during the past year. Copies may be obtained by writing the Washburn Company or the publishers of SOAP.

282—New Filler Bulletin

The U. S. Bottlers Machinery Co., Chicago, has just published a twelve-page bulletin covering the U. S. Automatic Rotary Fillers. The brochure brings out the adaptability of the machine for work on a wide range of products. Copies may be obtained by writing U S. Bottlers or the publishers of SOAP.

Ruzicka Visits Firmenich

Dr. L. Ruzicka of the University of Zurich, Switzerland, stopped at the New York offices of Firmenich & Co., September 4, en route to the Harvard University Tercentenary Conference of Arts & Sciences at Cambridge, Mass. He was accompanied by Madame Ruzicka A dinner in their honor was given by the officials of Firmenich & Co, New York representatives of Chuit Naef & Cie., Zurich, who produce a number of products based on musks and civet which were originally developed by Dr. Ruzicka.

Wharry Wins Oil Trades Golf

The final golf tournament to be held by the New York Oil Trades Association this season was given at the Pelham Country Club, Pelham, N. Y., September 22, with almost two hundred members and guests in attendance. For the third successive year G. A. Wharry of G. A. Wharry & Co., won possession of the Weihman trophy emblematic of the golf championship of the industry by carding an 81. Other winners in the various classes were as follows: low gross, class A, S. S. Seltzer, Royal Petroleum Corp., and John P. McFadden, General American Tank Car Corp.; class B, E. H. Frey, Frey & Horgan; low net, class A, C. A. Oettler, Fair-Chester Oil Co., and H. V. Delapena, Grace Natl. Bank; class B, L. N. Jackson, L. N. Jackson & Co., and M. B. Snevily, St. Clair Oil Co.; kickers' handicap, Samuel Z. Weaver, Weaver & Hugi, Inc., and Frank Boyd, Service Station Equipment Co. In addition to the golf tournament another important feature of the day's activities was a spirited baseball game in which L. V. Palmer, Borne-Scrymser Co., pitched his team to victory over the opposing team for which Ed Hyde, Beechnut Packing Co., did the pitching. Players on the winning team included Messrs. George, Davison, Meon, Sonneborn, Wilson, Walk, Dorland and Gebhart.

Buys Two Angels Firm

W. R. Scott Orr, who resigned some time ago as president and general manager of Two Angels Products Co. to form W. R. S. Orr Associates, has bought out the Two Angels firm and re-incorporated it under the name of Two Angels Co. Present offices of the company, which manufactures hair restorer, a scalp food, shampoo, and germicidal skin food under the "Two Angels" brand name, are in the Empire Building, Detroit.

Treece's Products Co., formerly of 6004 Magazine St., New Orleans have moved to 828 Octavia St.

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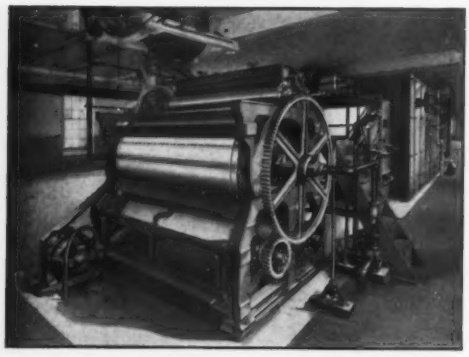

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No. 2,049,476, Detergent, Patented August 4, 1936, by Axel Leonard Sodergreen, Malverne, N. Y., assignor to Herbert D. Pease, New York, N. Y. A process for making a detergent from a cereal consisting in depolymerizing the protein and hydrolyzing the starch by subjecting same to heat in the presence of moisture; alkalizing the depolymerized protein and hydrolyzed starch and saponifying the imbedded fats and fatty-acids if present by intimate contact with nascent caustic solution made by the progressively released moisture from the cereal; maintaining sufficient heat under pressure to produce proper liberation of water vapor, thus securing thorough alkalization; and finally exhausting the liberated gases and neutralizing any free caustic alkali by means of carbon dioxide under pressure.

No. 2,049,725, Insecticide, Patented August 4, 1936, by Lloyd E. Smith, Washington, D. C., dedicated to the free use of the Public in the United States of America. An insecticide containing as its essential active ingredient a diaryl thioxine.

No. 2,051,625, Soap for Advertising Purposes, Patented August 18, 1936, by James Arthur Watt, Chicago, Ill. As an article of manufacture, a bar of soap having a central recess defined by an ustanding outer marginal rib extending around the top of the bar, the bottom of the recess having advertising matter therein and being raised and having a substantially continuous channel between the raised portion and the rib, the rib being notched to allow water to flow freely from the bottom of the channel and out of the recess when the bar is positioned with the advertising matter uppermost so as to prevent water from accumulating in the recess and thus damaging the advertising matter in the bottom of the recess.

No. 2,051,697, Liquid Cleaner for Silverware, Patented August 18, 1936, by Wilmer C. Gangloff and Russell H. Hieronymus, Cincinnati, Ohio, assignors to The Drackett Company, Cincinnati. An immersion solution for cleaning silver tarnish in the presence of a metal electropositive to silver comprising diaminopropanol, NH_4Cl and water to form a 1% to 3% solution.

No. 2,052,374, Water-Soluble and Water-Miscible Insecticides, Patented August 25, 1936, by Robert Wotherspoon, East Orange, N. J., assignor to Derris, Inc., New York, N. Y. An aqueous-disseminatable composition of matter consisting of an insecticide obtainable from derris and similar insecticidal - containing plant materials containing rotenone, deguelin, tephrosin and toxicarol and a water-soluble phenol containing at least two hydroxyl groups.

Kelly C.S.A. Golf Champ

The cup emblematic of the golf championship of the Chemical Salesmen's Association was awarded to Charles Kelly, Hagerty Bros., New York, at the final tournament of the season held September 15 at Pomonok Golf Club, Flushing, L. I. The new champion's low gross score was an 80, clinched by holing a twenty-five foot putt on the last green. W. D. Merrill, Jos. Turner & Co., and F. A. Neuberg, Warner Chemical Co., tied for second place, each with an 81.

In the handicap competition D. W. Thompson, Mathieson Alkali Co., placed first in class A, followed by R. C. Quortrup, Barrett Co., and P. C. Reilly, Reilly Tar & Chemical Corp. In class B, George Bode, E. I. du Pont de Nemours & Co., took first place, with C. M. Frost, Prior Chemical Co., second, and F. W. Green, National Aniline & Chemical Co., third. In the member kickers' handicap J. Alvarez, Grasselli Chemical Co., won first prize, with the other awards going to C. O. Lind, Dow Chemical Co., and W. I. Galliher, Columbia Alkali Corp. Winners in the guest kickers' competition were S. F. Walters, Chas. Alexander and C. L. Lightfoot.

Special prizes were awarded on the basis of kickers' handicaps for the four season tournaments. In this group first prize went to Fraser Moffatt, U. S. Industrial Chemical Co., with R. E. Dorland, Dow Chemical Co., second, and H. Kranich, Kranich Soap Works, third. The guest low gross prize went to H. H. Finn, Standard Oil Co. of N. J. G. Furman, Merck & Co., had the longest drive and E. W. Haley, Columbia Alkali Co., won an award for dropping his tee shot closest to the pin. Walter Buehler, Barrett Co., scored the lowest number of putts.

Attendance at the final tournament numbered 93. Following dinner at the Pomonok Club a floor show was put on. Arrangements for the outing were made by B. J. Gogarty, Commercial Solvents & Chemical Corp.

Oil and Fat Price Index Up

The oils and fats price index, as compiled by the Bureau of Raw Materials for American Vegetable Oils and Fats Industries, increased from 101.0 in July to 108.1 in August. This index, based on 1909-1914 average, was 102.1 in August, 1935. The index numbers of various oils and fats for the months of July and August, 1936, are as follows:

	August 1936	July 1936
Corn oil	153.7	143.1
Cottonseed oil	155.3	150.6
Stearin, oleo	92.3	83.4
Coconut oil*	47.9	47.9
Grease	89.6	87.2
Olive oil foots	128.2	115.9
Palm oil*	58.9	51.9
Palm kernel oil*	53.7	47.7
Tallow	87.7	82.3
Whale oil	104.2	109.1

* Tax not included.

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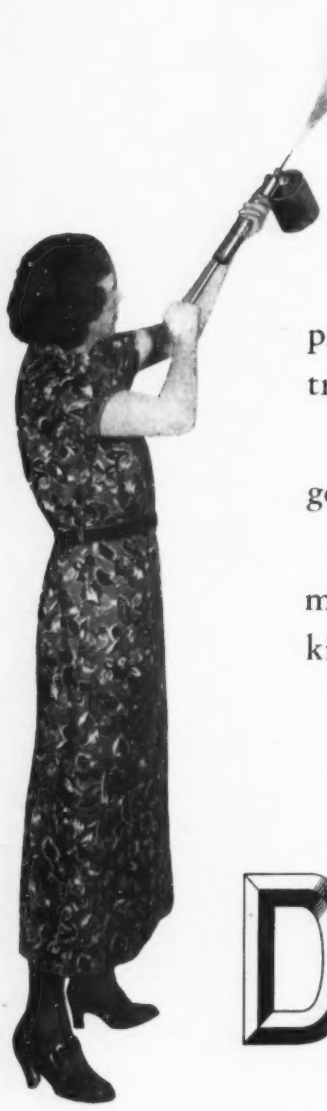

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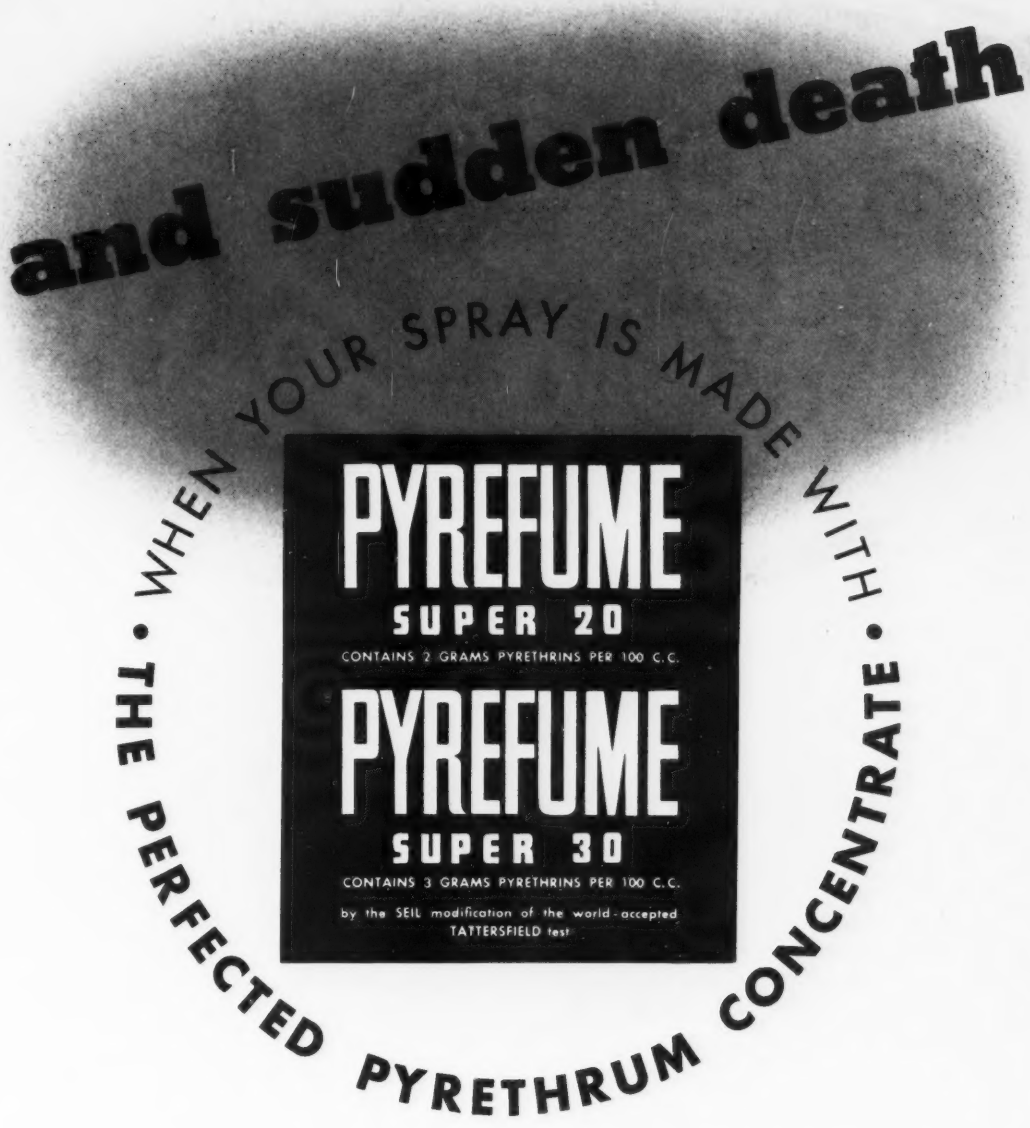
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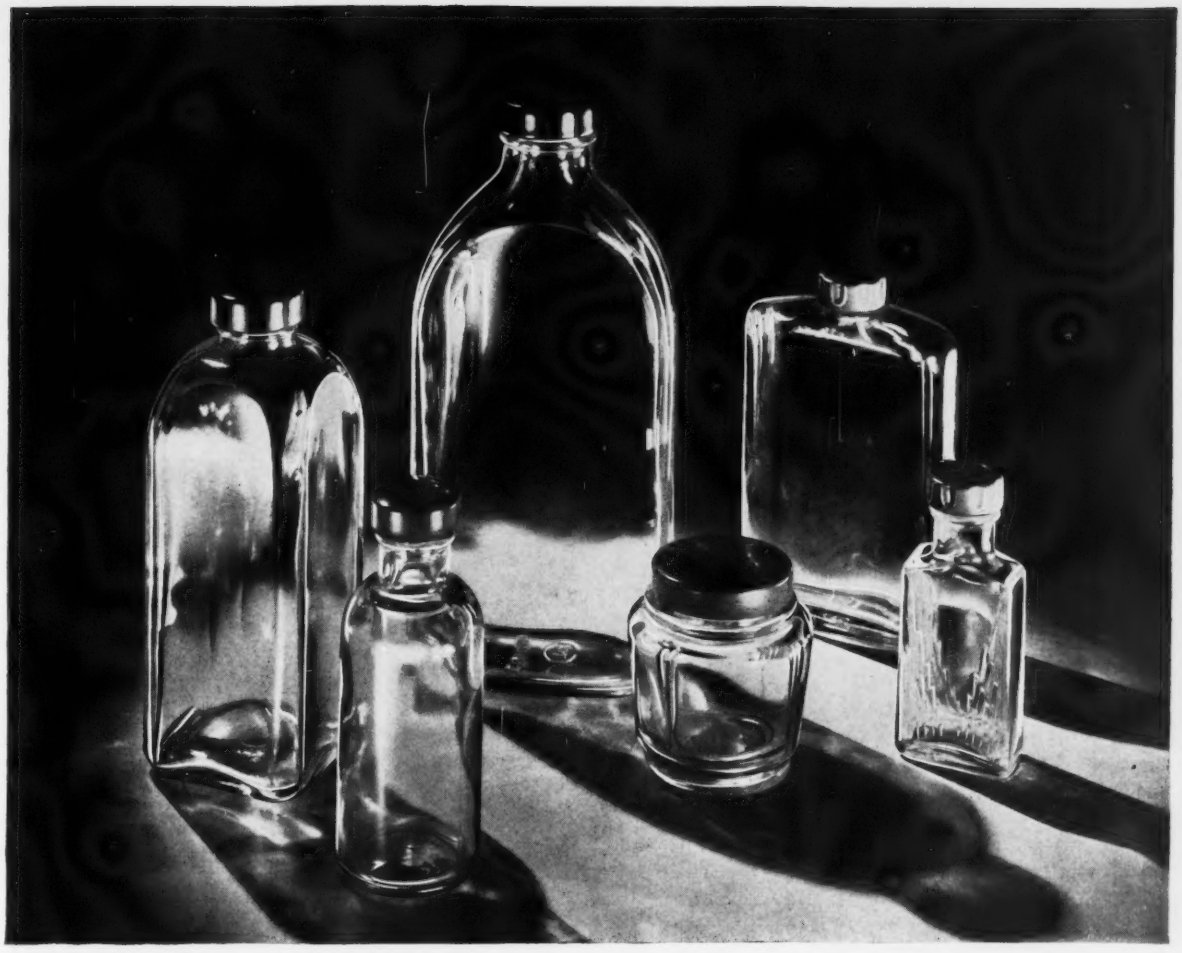

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CRYSTAL CLEAR BOTTLES

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Standardized
in the most complete testing laboratories in the insecticide industry
A uniform, standardized pyrethrum concentrate, with a guaranteed minimum content of 2.0 grams of pyrethrins per 100 cc.—equivalent to 2.4% pyrethrins. Controlled by chemical assay—checked by comparative spray tests using both "Campbell" and "Peet-Grady" Methods. Our recommendations are based on field performance. Write for information.
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PYRETHROL 20
"Campbell Turntable" Method Testing Equipment recently installed in McCormick's Insecticide Laboratories. Used in conjunction with "Peet-Grady" Method for accurate comparative tests of liquid insecticides.
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STANDARDIZED PYRETHRUM AND DERRIS PRODUCTS

PYRETHROL 20 • PYRETHRUM POWDER • DERRIS POWDER
DERRIS EXTRACT • DERRIS RESINATE • ROTENONE CRYSTALS

Mounting Sales ... Larger Profits

That's the reason in the trade for the increasing popularity of Solvay Para-dichlorobenzene in the insectide and deodorant field.

Available in a wide variety of crystal sizes—it meets all the needs of the repacker and reseller. Carefully graded, constantly uniform, it satisfies the most exacting insectide requirements as to quality and dependability.

Write today for samples, prices and new folder on the Control of Moths and Objectionable Odors.

SOLVAY SALES CORPORATION

Alkalies and Chemical Products Manufactured by The Solvay Process Company

40 RECTOR STREET NEW YORK

SOLVAY

TRADE MARK REG. U. S. PAT. OFF.

Para-dichlorobenzene

"Everyone knows where to buy (—?—)"

Many a time, when we have been discussing advertising with manufacturers in various fields, the prospective user of our productive advertising pages has stated: "Why advertise this product of mine? Everyone in your field knows where to buy it and they all know we are headquarters." Perhaps some of us get so close to our own particular sphere of activity that it seems almost impossible (to us) to believe we are not as well known as we think we are. Evidently everyone is not posted on where to buy everything used in the manufacture of soaps and sanitary products and in the sanitary supply trade. Cast your eye down this list of items, for which we have been requested to furnish sources of supply during the past few months.

Mixing machinery
Deodorizing block holders
Steam sprayers
Insect powder
Liquid soap filter
Labeling machinery
Caps
Powdered aluminum
Drain pipe solvent
Sodium bisulphate
Moth proofing chemical
T.S.P.
Caustic potash
Bleached montan wax
Fluorides
Rug shampoo
Wool mops
Shaker top cans
Glass containers
Glue
Glass polish
Olive oil castile soap
Olive oil foots
Blue mottled soap
Packaged soap flakes
Soap powder
Lemon cocoa soap
Soap flakes
Laundry soap
Toilet soap
Scouring powder
Collapsible tubes
Powder soap dispenser
Bulk disinfectant
Waterless soap
Polish and mop cloths
Fly spray
Moth tablet
Tablet-making machine
Modified soda
Feldspar
Presses
Soap dies
Creosote oil
Derris and rotenone
Fatty acids
Naphthalene flakes
Tar oil
Dryer for pumice sand
Refining machinery
Japan wax
Carnauba wax
Soap powder mills
Multi-unit dispensing system
Liquid soap dispenser
Sprinkler tops
Lanolin
Household ammonia
Sodium metaphosphate
Fibre cans
Ethylene dichloride
Ethanolamine
Ethanolamine soaps
Bulk waxes
Ant exterminating powder
Abrasives
Powdered borax
Kaolin
Bentonite
Wetting out agents
Shaving soap
Novelty gift sets
Oil soap
Paper cuspidors
Tube filling machinery
Mopping trucks
Linseed oil substitute
Sweeping compound
Hand atomizer and sprayer

If your product is advertised regularly in SOAP and also in the annual SOAP BLUE BOOK you might catch some of these buyers before they go elsewhere. (Naturally, inquiries from our office go exclusively to SOAP advertisers.)

DID YOUR FLY SPRAY SALES MEET EXPECTATIONS THIS SEASON?

Retail buyers insist on a fly spray entirely free from disagreeable odor. If the odor of your product has been inadequately neutralized . . . if your product is poorly perfumed . . . if it lacks "fragrance appeal," it has probably failed to fulfil sales expectancy.

Satisfactory sales depend on the selection of appealing fragrance. You need SPECIAL fragrances . . . clean, "outdoor" odors that seem to actually clear the air.

Now

IS THE TIME TO IMPROVE YOUR PRODUCT FOR NEXT SEASON'S BUSINESS . . .

Use

BOUQUET TOX No. 30
BOUQUET TOX No. 40
BOUQUET TOX No. 50
BOUQUET TOX No. 60

These four selections are adequately diverse in proven appeal, and sufficiently economical in cost to meet every requirement.

WRITE US TODAY FOR WORKING SAMPLES AND PRICES!

FELTON CHEMICAL COMPANY

INCORPORATED

603 Johnson Avenue, Brooklyn, N. Y.

MANUFACTURERS OF AROMATIC CHEMICALS, NATURAL ISOLATES PERFUME OILS, ARTIFICIAL FLOWER AND FLAVOR OILS

Boston, Mass.	Philadelphia, Pa.	Sandusky, Ill.	Chicago, Ill.	St. Louis, Mo.	New Orleans, La.	Los Angeles, Calif.	San Francisco, Calif.
80 Boylston St.	200 So. 12th St.	1408 W. Market St.	1200 N. Ashland Ave.	245 Union Blvd.	Balter Bldg.	515 So. Fairfax Ave.	512 Washington St.

1937
DISINFECTANT
CONTRACTS

Baird's

TRADE MARK REG

He Who Hesitates May Lose!

Raw materials are steadily advancing, thus forcing disinfectant costs upward. It would be to your interest to contract with us now for your 1937 needs. Tell us your requirements and we will submit contract to cover.

Baird & McGuire, Inc.

HOLBROOK, MASS.

National Association of INSECTICIDE AND DISINFECTANT MANUFACTURERS Incorporated 1914

ST. LOUIS, MO.

New York City and New Jersey Representative

EASTERN STATES SUPPLY CO., 127 Troutman St., Brooklyn, N. Y.

Phone: EVergreen 8-2498

SANITARY PRODUCTS

A Section of SOAP

Official Publication, Nat'l. Assn. of Insecticide & Disinfectant Manufacturers

A WARNING has been suggested by a well-known manufacturer of disinfectants to firms who repack U. S. P. Cresol Compound or who resell this material in bulk. Danger lurks for the reseller who is not certain of the product which he is reselling. It may be U. S. P. and then again it may not meet the requirements of the Pharmacopoeia. Reports would indicate that there have been for some time, and still are considerable quantities of cresol compound being sold and labelled as U. S. P. when in reality they are not U. S. P. Technical cresol compound, made with cresylic acid in place of U. S. P. Cresol, cannot legally be labelled U. S. P. The Food and Drug Administration has already picked up numerous products falling in this category and they will in all likelihood pick up many more. A jobber or a repacker may be an innocent victim inasmuch as he may believe that he has bought a U. S. P. product. However, this will not excuse him if his material is picked up and he is fined. Neither will it compensate for the undesirable publicity which is far more damaging. Better that the reseller should be certain the product unquestionably meets the U. S. P. requirements before he puts his label on the packages and ships them across a state line.

IRRESPECTIVE of his belief, or lack of it, in the constitutionality of the Robinson-Patman Act, the only safe course at present for any manufacturer who does not want to fight the issue single-handed, is to comply with the law to the best of his ability and knowledge. For the practical guidance of manufacturers, especially those selling and distributing branded small packaged goods through retail channels,—not much authentic information seems to be available regarding the applicability of the law to others,—we have published rather fully in this issue extracts from advisory bulletins of the Proprietary Association and the Toilet Goods Association. They apply equally to the manufacturer of insecticides, disinfectants, polishes, floor waxes, and other sanitary specialties. What to do, and what not to do, under the law is explained concisely and tersely. We recommend that every manufacturer who still finds himself at sea regarding the practical operation of the law, study these views of legal authorities, and be guided accordingly for the time being.

NOT only is "now the time for all good men to come to the aid of their party," but now is also the time for all insecticide manufacturers to give a thought to the 1937 season. Instead of smugness and general self satisfaction with the products now on the market, we suggest a degree of product examination. The average manufacturer gets so in the habit of boosting his wares in his sales arguments that, after a time, he believes them all himself. Sometimes they are true, but more often, a good many of them are faulty. And the public does not buy the second time on sales argument,—especially not if the product stains the shades, does not kill the bugs, or smells to high heaven either of too much wrong perfume or just plain kerosene.

There are plenty of products on the market which are poor, but which their manufacturers apparently believe are the last word. Of course,

(*Turn to Page* 103)

Antiseptic Testing

A Criticism of the Allen Method of Testing Antiseptics

By Dr. George F. Reddish*
Lambert Pharmacal Company

IN 1928 A. W. Allen and I. S. Wright[1] published a paper entitled "The Bactericidal Properties of Solution S. T. 37" in which they described roughly a procedure which they employed for determining the germicidal efficiency of this antiseptic. Later (1929) Allen[2] used this method for testing the bactericidal values of twenty-one commonly used antiseptics. Because of serious errors in technique brought to the attention of Allen, certain details of this test were modified by Allen and Wright[3] in 1931. This modified method was then employed by Allen, Moorhead, and Edgerly[4] in a study of thirty-four antiseptics, most of which were among those tested by Allen in 1929.

Although the method of testing liquid antiseptics employed by Allen and his associates was proposed seven years ago, it has not been accepted or even recognized by qualified bacteriologists. The reason for this is obvious from even a superficial study of the method. It is for this reason that the Antiseptics Committee has seen fit to make a study of this method and report its findings to the Association. A careful study has been made of the original method as published in 1928 and 1929 and also the revision which was made in 1931.

In addition to finding the method faulty in many specific details, which account for the unreliable results obtained by its use, the Committee is convinced that this proposed procedure offers no advantages whatever over the standard Food and Drug Administration Method. Although Allen and his associates claim that this test simulates practical conditions to a considerable degree, this Committee is unable to find in what respects this test more nearly approaches practical conditions than does the F. D. A. Method. No reason can be found for making use of this test in place of or even in connection with the F. D. A. Method. This is the collective opinion of the Committee and in this it is supported in its position by independent investigators.

Shortly after the publication of Allen's paper in 1929[2] the Referee on Disinfectant Standardization for the American Public Health Association made a careful study of this proposed test. He found it so faulty and unreliable that it could not be recommended as a method for testing antiseptics. The errors found by the Referee were so serious that he brought them to the attention of Allen. It was shown that the lack of repeatability is inherent in the test; that the results obtained are unreliable no matter how competent the bacteriologist doing the test; and that the results obtained by the use of this method do not represent the true value of the antiseptics tested. It was further shown that certain data obtained by this method and published by Allen and his associates were wrong, not to the extent of the usual experimental error, but entirely wrong by a very wide margin. For example, Allen reported that a certain antiseptic did not kill *Staphylococcus aureus* by this test in three hours, whereas the Referee on Disinfectant Standardization for the American Public Health Association found that it kills this organism by this test within the shortest time period of the test, namely fifteen minutes. Although these errors in the data published by Allen were pointed out to him by the Referee in 1929, he has not as yet seen fit to acknowledge these mistakes and make the necessary corrections.

The findings of the Referee on Disinfectant Standardization for the American Public Health Association have recently been confirmed by Lewis and Rettger[5] of Yale University. In a paper entitled "An Experimental Critique of the Allen Method of Evaluating the Bactericidal Action of Antiseptics," Lewis and Rettger report that this procedure is so faulty and unrealiable that the value of antiseptics cannot be estimated even approximately. These investigators summarize their findings as follows:

"Summary"

"Repetition of the procedures recommended by Allen in 1929, and Allen and Wright in 1931, for evaluating antiseptics has shown that because of skips and lack of repeatability these methods are unreliable. A major portion of the faults of these technics may be attributed to the fact that organisms on the lower portion of a medicated agar slope are less readily killed than those on the upper portion.

"Although the results presented here indicate that little significance may be attached to the two methods of Allen, and to his reported data, they do not necessarily imply that the principle of determining bactericidal action of substances upon organisms growing on an agar surface lacks merit. The presentation here of a further modification of the agar culture technic is based on limited observations. It does, however, appear to obviate some of the difficulties of Allen's methods."

*A special report of the Antiseptics Committee of the Natl. Assn. of Insecticide & Disinfectant Mfrs. in which Dr. Emil Klarmann, John H. Wright, and C. L. Black collaborated with Dr. Reddish.

The following excerpts from this paper substantiate the conclusions given in the above summary:

"Almost any one of the other tests in which skips occurred could be used to illustrate this *defect* which, as will be shown later, *is largely inherent in the method.*"

"In other words, when complete killing or marked reduction in the number of living cells took place between the time of the first and last transfers, *the results varied so widely that it was impossible to assign any definite values to the antiseptics.* Obviously, this type of discrepancy imposes serious limitations on the test; for, if it is not reproducible little can be gained by its use."

"*The data obtained by us are by no means in accord with those presented by Allen for supposedly similar tests.*"

"Since no certain explanation presents itself, this point must be accepted simply as *further evidence of the unreliability of the method.*"

"Although *Allen's Modified Method* appears somewhat more satisfactory than his Original Method, it too exhibits the same *fundamental defects of irregularity and lack of reproducibility.* Consequently, the criticism presented above may be considered to apply equally to both technics."

". . . this physical factor being of general importance in interpreting *the faculty results obtained by Allen's technic.*"

"Also, a technician knowing this trick could, within limits, *vary the results to suit his fancy.*"

"While the above comments do not entirely explain the difficulties encountered, the point stressed appears to us to *constitute a sufficiently serious objection to Allen's technics to lay data obtained by them open to serious question.*"

"Although an agar gel can scarcely be considered as an adequate substitute for living tissue. . . ."

"Having demonstrated that the *procedures recommended by Allen do not give satisfactory results . . .*"

"Repetition of the procedures recommended by Allen in 1929, and by Allen and Wright in 1931, for evaluating antiseptics has shown that *because of skips and lack of repeatability these methods are unreliable.*"

"Although the results presented here indicate that *little significance may be attached to the two methods of Allen, and to his reported data. . . .*"

It is evident from these reports, that from the Referee on Disinfectant Standardization and the above paper by Lewis and Rettger of Yale University, that the method of testing antiseptics employed by Allen is so defective that reliable results cannot be obtained. Any criticisms of antiseptics based on results obtained by this method of test cannot be considered as valid since the test itself has been shown to be wholly unreliable.

When the Food and Drug Administration Method was used by Allen and his associates (Allen, Moorhead, and Edgerly[4]) in their study of thirty-four commonly used antiseptics, they found that all of the antiseptics, with two exceptions, studied by them passed this test satisfactorily. Benzine, gasoline, and ether did not pass the F. D. A. test, but since they are not even considered as antiseptics their failure to pass the test is of no significance. They found, however, that most of these same antiseptics when tested by the Allen method do not kill the test organisms employed in fifteen minutes, and for that reason are considered as ineffective. (The maximum time period of test was reduced from three hours in the 1929 paper[2] to fifteen minutes in the above paper published in 1934[4]). The F. D. A. Method is the official testing method of the U. S. Food and Drug Administration and has been generally adopted in this country as the standard method for testing antiseptics. In the light of the above findings relative to the deficiencies of the Allen technique, there should be no difficulty in choosing which method of testing antiseptics should be employed. For the same reasons there should be no hesitation in deciding which results should be accepted as the proper basis for evaluating the value of antiseptics—those obtained by the discredited Allen technique or those obtained by the standard Food and Drug Administration Method. The F. D. A. Method is accurate, reliable, and sufficiently severe to rule out ineffective preparations. There is ample evidence, based on practical and clinical tests, to show that liquid antiseptics which pass the F. D. A. test are effective when used in practice.

On the basis of the facts presented here, it is concluded by the Antiseptics Committee that the procedure for testing liquid antiseptics proposed by Allen should not be used. The results obtained by this method are unreliable and do not represent a proper and true evaluation of antiseptics. The Food and Drug Administration Method, on the other hand, is accurate, reliable, and sufficiently severe to be satisfactory for the testing and control of antiseptics and gives a true and proper indication of the effectiveness of this class of germicides.

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The Chinese plant, lai-tung, is used as an insecticide. Besides other compounds, it contains 1.5-1.53 per cent of pure deguelin and 0.6 per cent of pure rotenone. *Lingnan Science J.* **15**, 335 (1936).

What to Do About the

Robinson-Patman Act

DEFINITE suggestions as to what to do and what not to do under the Robinson-Patman Act have been summarized briefly by James F. Hoge, counsel for the Proprietary Association. This summary comprises in effect a practical guide to manufacturers and others in avoiding difficulties under this new law. The suggestions of Mr. Hoge are published herewith by permission of the Proprietary Association.—*The Editors.*

Things to Do

1. Determine whether your practices are morally fair, just, and reasonable. It does not require a lawyer to do that. That is a thing you can do. Much of the difficulty about the Act has really been the difficulty of finding loopholes in it or ways to persist safely in continuing the effect of present practices.

Regardless of the vagueness and ambiguity of this statute, it is generally understood that the basic purpose of it is to suppress unfair and unjustified discriminations in price (or in terms of sale affecting price) between large and small buyers. The purpose is to prohibit differentials in price that are not justified by differences in cost, and also to prohibit allowances, rebates, discounts, and other concessions that are either camouflage or are not made available proportionately to large and small buyers.

The Supreme Court of the United States has said:

> "Literal interpretation of statutes at the expense of the reason of the law and producing absurd consequences or flagrant injustice has frequently been condemned." *Sorrell* vs. *U. S.*, 287 U. S. 435.
>
> "All laws are to be given a sensible construction; and a literal application of a statute, which would lead to absurd consequences, should be avoided whenever a reasonable application can be given to it, consistent with the legislative purpose." *U. S.* vs. *Katz*, 271 U. S. 354.

Admitting the imperfections of this statute and the possibility for "absurd consequences" through literal application, you may have considerable assurance if you square your practices with the basic purpose of the Act.

2. Determine whether your practices constitute a discrimination. That is the first element in a violation of this law. The word "discriminate" means:

> "to make a difference in treatment or favor (of one as compared with others)."

3. If your practices constitute a discrimination, then determine whether the discrimination is between customers who are in competition with each other, or whose customers are in competition with each other, or whether your customers are also customers of your competitors, and whether the effect of such discrimination may be substantially to lessen competition or tend to create a monopoly, or to injure, destroy, or prevent competition with you or the customer who knowingly receives the benefit of the discrimination, or with customers of you or such person. This is the second element in a violation. A discrimination is not unlawful unless this second element is present.

4. Determine whether the transaction in which the discrimination is practiced is in interstate commerce or constitutes a burden upon that commerce. In most cases, especially as affects large scale business, intrastate commerce will be difficult to determine. But it is a third, and necessary, element in a violation. The law does not apply in intrastate commerce.

5. Consult your lawyer. Give him full detailed information on your system and practices of distribution. Even after determining that your practices are fair and just, it is possible, because of the ambiguous and all-embracing nature of the Act, that you may be ensnared in innocent technical violations; that literal application may involve you in "absurd consequences."

Although you may have considerable assurance in avoiding the legal meshes if your practices are fair, and although governmental agencies may give the law a sensible construction, competitors and customers may assert a more technical position and sue you for damages. Also, one portion of the law is criminal in nature.

Therefore, for greater assurance, you should canvass with your attorney every possible application of this Act to your business. One endeavoring to conform to the statute in good faith will necessarily meet legal problems. One finding it impossible to conform to the statute in some of its applications and still conduct a profitable business must balance the legal risk of damages or fines possibly resulting from a violation as against the certain loss of profits or business from literal compliance.

6. Study the Act yourself. It will give you a few headaches and you will find most of it difficult to understand, but so does everybody else. Notwithstanding, you should be familiar with the language of the Act and the purposes sought to be accomplished, and thereby better prepared to consult your lawyer, to perceive possible applications of the Act to your practices, and to appreciate the responsibilities involved.

Things Not to Do

1. Do not rely on general advice, bulletins, writings, and trade gossip. These contain discussion and suggestions which at times are thought-provoking and usually worthwhile. Study them. But, compliance by individual corporations or persons affected by this law cannot be formulated on general advice. You and your own individual attorney are the only ones who can chart your course.

2. Do not disregard the law and the idea behind it. It is true that the law is uncertain, ambiguous, and susceptible of absurd constructions. But, the idea is quite clear, and the law is the result of the idea and of strong forces moving in support of it. It has come as the result of a protracted so-called Chain Store Investigation conducted by the Federal Trade Commission; as the result of long smouldering resentment by a multitude of independent or small dealers who have suffered under discriminatory practices that have frequently been flagrant; as the result of a growing recognition on the part of producers that discrimination is cancerously undermining good distribution.

No one seriously denies the existence of unfair practices in distribution. No one seriously denies that business has either been unable, or unwilling, to eliminate them. Without praise for the form of the statute, there is praise for the idea behind it and strong probability that the idea will continue to have legislative expression.

This statute should, and perhaps will, be clarified by subsequent sessions of Congress. Perhaps it will also be strengthened. Quite likely it is unconstitutional in some of its provisions, but that is something which will not be determined for a long while and then only on the facts presented in actual cases. One will not be heard to ques-

tion its constitutionality until one stands to be injured by the application of it to him.

3. Do not defer compliance with the law. It is reported that complaints already have been made to the Federal Trade Commission. Private suits may be instituted at any time. Criminal prosecutions may be begun. Every violation, of course, cannot be acted upon at one time, but no one has any assurance that he may not be among the first. And, damages, which may be trebled and recovered in suits by persons injured by violation of the law, will cumulate upon discriminations from and after June 19, 1936, the effective date of the Act.

4. Do not attempt evasion and subterfuge. If you cannot bring all of your practices into literal conformity with the Act, it is better that you evolve new systems or methods of distribution, or that you meet a test of the law's enforceability against you on a genuine case of actual facts and good intent. Subterfuge and evasion will be persuasive of "knowledge" of discrimination which is an element of a criminal violation. They will also support the charge that the discrimination injures, destroys or prevents competition, which is an element of the civil violations.

5. Do not make representations, written or oral, that discounts, allowances, or services rendered a particular dealer are not discriminatory unless you are certain they are not and unless you desire to assume the full risk of their being discriminatory. Such a representation may relieve the one who receives the benefit of the discrimination from any liability under the Act because liability of the one who receives a discrimination arises only when he knowingly induces or receives it.

An important provision of this law is the application of it to one who receives. Heretofore, the law has applied only to one who grants. It was recognized that many discriminations are induced by the buyer, and that frequently the seller granted the discrimination under compulsion—or pressure. It not only is fair that the buyer who receives the benefit should share the liability, but it adds to the effectiveness of the statute and facilitates the seller's compliance with it.

Things to Know

1. The first section of the Act is an amendment of Section 2 of the Clayton Act. Therefore, other provisions of the Clayton Act as they bear upon definitions and procedure are applicable to this portion of the new law. Section 3 of the Act is the criminal portion. It is not an amendment of any act.

Everything forbidden by Section 1 is not subject to criminal prosecution under Section 3, but everything actionable under Section 3 would violate Section 1. For illustration, discriminations do not violate Section 3 when they are available to the competitors of the purchaser in respect of a sale of like grade, quality, and quantity. Under Section 1 differentials will not be allowed, regardless of quantity, except as they make only due allowance for differences in the cost of manufacture, sale, or delivery resulting from the differing methods or quantities.

2. Section 1 will be administered by the Federal Trade Commission, acting either on the complaint of competitors or on its own complaint. The procedure there culminates in a cease and desist order which is appealable to the Circuit Court of Appeals, and enforceable by that Court on application of the Commission.

3. In proceedings by the Federal Trade Commission the burden of proof is upon the person charged with a violation of the law. It is sufficient for the Commission to show that there has been discrimination in price or services or facilities furnished. The burden then shifts to the person charged with discrimination to show justification. Unless justification is affirmatively shown, the Commission is authorized to issue an order terminating the discrimination. This does not pertain to criminal prosecutions or to civil suits brought by private persons. It pertains only to proceedings instituted by the Commission. It is for the purpose of facilitating enforcement of the Act and is based on the principle that the party in possession of the facts is the one more able to show them.

4. Violations of Section 1 may also be prosecuted by the Attorney General of the United States in suits for injunction.

5. Section 3 is the criminal section. It is the so-called Borah-Van Nuys Amendment. It will be enforced by criminal prosecution which, in event of conviction, will result in a fine of not more than $5,000 or imprisonment for not more than one year, or both.

6. Section 4 of the Clayton Act provides that suits for damages may be brought by anyone "injured in his business or property by reason of anything forbidden in the Anti-Trust Laws." Suit may be filed in any District Court of the United States in the district in which the defendant resides, or is found, or has an agent, without respect to the amount in controversy. The damages sustained by such person "shall" be recovered three-fold. To the damages recovered "shall" be added the costs of suit and "a reasonable" attorney's fee.

This undoubtedly is the most likely field for litigation under the new law. These suits may be filed before the Federal Trade Commission or the Attorney General take action upon any particular case. This peril is real. Under the expanded provisions of the new law potential plaintiffs are unnumbered and potential causes of action are unlimited. Also, the amounts of damages that can be recovered are in some cases extremely large. Under the old law, restricted as it was in comparison with the new, recoveries counted in six figures have been had.

These suits will not involve only small transactions. The damages in those can attain substantial proportions when the small transactions are multiplied many times. But these suits may also include actions by large dealers and by manufacturing competitors. A manufacturer competing in similar goods may bring suit against another manufacturer whose discriminations have injured him in his business throughout a large territory and, perhaps, over a long period of time.

Dealers who do not buy direct from the seller may nevertheless institute civil suits against the seller where the seller has discriminated between his customers who in turn sold to the ultimate dealer. The Act outlaws discrimination which injures, destroys or prevents competition with any person who either grants or knowingly receives the benefit of such discrimination *or with customers of either of them.* Thus, if a manufacturer discriminates between two wholesalers, the customers of the wholesaler discriminated against may have a cause of action against the manufacturer on the ground that the discrimination injured, destroyed or prevented competition between them and the customers of the wholesaler who received the benefit of the discrimination.

The peril here is something apart from actions by governmental bureaus. While private parties may take advantage of judgments that have been obtained in actions brought by the government, they do not have to wait for the government to act and they do not have to accept the government's construction of the law.

The Congressional reports and debates are quite fair in their expressions as to the law's purpose and application. It is evident from them that Congress had before it the basic purpose of the Act. Likewise, there is no reason to suppose that the Federal Trade Commission and the Attorney General are not going to view the Act in the same light and give it a sensible construction, directed to accomplishing its basic purpose to prevent unjustified discriminations.

There can be no such assurance, however, respecting suits brought by private persons who may discover provisions in this inclusive statute to redress actual or imagined injuries. And, the Act can become a fertile breeding ground for nuisance value or strike suits.

7. The Act applies only to interstate commerce. But, it is to be noted that in attempting to broaden the jurisdiction of the Clayton Act, the Act uses the phrase

> "where either or any of the purchases involved in such discrimination are in commerce."

The word "commerce" means interstate commerce. In business done on a large scale intrastate commerce will usually be a difficult and technical question to determine.

8. Section 1 (a) clearly does not apply to export business except "where such commodities are sold for use, consumption or resale within . . . any insular possession or other place under the jurisdiction of the United States." It is not clear whether the other subsections apply to export or not. Subsection (d) uses merely the word "commerce" with foreign nations. Subsection (e) apparently has no territorial limitations for the word "commerce" does not appear in it. The court may read into all of the subsections the same territorial application set out in subsection (a). But, Section 3 is distinct from Section 1 and is not a part of any other law. It contains no definition of the word "commerce." The court would doubtless construe that Congress meant interstate commerce. And, on the usual definitions, that would include export.

9. The Act applies to terms of sale which, in effect, amount to indirect discriminations in price. It is unlawful "either directly or indirectly to discriminate in price." The words "terms of sale" appeared in a former draft of the bill and were taken out before enactment. The conference report on the bill, however, states that it was believed that the word "indirectly" which appears in subsection (a) "was sufficiently broad to cover such situations as the discriminatory use of terms of sale."

10. Whether so-called "zone prices"—different prices for the same commodities in different zones—are affected by the Act raises a question of fact depending in each specific case upon whether the buyers in one zone are in competition with the buyers in the other zones.

11. There is some difference of opinion as to whether the words "customers" and "purchasers" include only the buyers who deal with the seller, or all persons who sell the seller's goods regardless of whether they buy from the seller or from an intermediary. The sounder view seems to be that they include only the immediate buyers of the seller. It is quite likely, however, that the view will be challenged.

12. Difference of opinion has been expressed as to whether a manufacturer may give a lower price to wholesalers than he gives to chains, department stores, and other direct buyers. Wholesalers and retailers not being in competition, such a discrimination does not seem to violate the Act. When, however, wholesalers also sell at retail, as some do, it will be difficult to avoid violation of the Act unless such wholesalers are classed as retailers.

13. Quantity discounts are allowed only to the extent that they represent "differences in the cost of manufacture, sale or delivery resulting from the differing methods or quantities in which such commodities are to such purchasers sold or delivered."
Whether the discounts allowed comply with this is a question of cost accounting to be determined by accountants and not by lawyers. General or average figures will not do. Price differentials cannot be claimed on the basis of a difference in cost in the seller's entire business. They must not exceed the savings which arise *in the particular transactions in which the discounts are allowed.*

Judge Utterback in his explanation to the House of Representatives on June 15th explained this provision of the law. He said, in part:

> "It is through this clause that the bill assures to the mass distributor, as to everyone else, full protection in the use and rewards of efficient methods in production and distribution in return for depriving him of the right to crush his efficient smaller competitors with the power and resources of mere size. There is no limit to the phases of production, sale, and distribution in which such improvements may be devised and the economies of superior efficiency achieved, nor from which those economies, when demonstrated, may be expressed in price differentials in favor of the particular customers whose distinctive methods of purchase and delivery make them possible. They apply as between purchasers of materials for use in manufacture, as well as between those who purchase purely as retail or wholesale distributors. As between purchasers in equal quantities, for example, where one takes multiple store-door delivery, and the other single warehouse delivery, with consequent savings in trucking or other delivery costs to the seller, that saving may be expressed in a price differential. Or where one places a single order calling for periodic deliveries over an extended period of time, whereas the other places smaller successive orders requiring more frequent and therefore more costly salesman solicitation, such a difference in cost may be expressed in a price differential. Or where one customer, devoid of storage facilities, requires spot deliveries during the rush of the season, for which the manufacturer must produce in advance and store himself in order to make the fullest utilization of his plant capacity; while another customer orders for delivery in off seasons, handling the storage himself and saving the manufacturer that cost, such a saving may be expressed in a price differential.
>
> Or where one customer orders from hand to mouth during the rush of the season, compelling the employment of more expensive overtime labor in order to fill his orders; while another orders far in advance, permitting the manufacturer to use cheaper off-season labor, with the elimination of overtime, or perhaps to buy his raw materials at cheaper off-season prices, such savings as between the two customers may likewise be expressed in price differentials. So also where a manufacturer or merchant sells to some customer through traveling-salesman solicitation, to others across the counter, and to others by mail order from catalog, price differentials may be made to reflect the differing costs of such varying methods of sale. These examples are illustrative of the way in which the bill permits the translation of differences in cost into price differentials as between the customers concerned, no matter where those differences arise."

14. The giving of free goods is in effect a discount and is an unlawful discrimination unless it is justified on the basis of the difference in the cost of selling the specified quantities with which free goods are allowed. Either manufacturer or wholesaler, or both, may be guilty of a violation on the same transaction because, among other reasons, both may be "party to, or assist in" or "induce" a discrimination prohibited by the Act.

15. The phrase "proportionately equal terms" has been the subject of much speculation. The Act does not define what is meant by the phrase and does not state the basis of the "proportion." It does not state to what the terms must be "proportionately equal."

The phrase appears in subsections (d) and (e). Those sections are designed to thwart discriminations "coming and going." The first applies to the payment of anything of value by a seller to a customer in consideration for any services furnished by or through such customer. The second refers to the seller contracting to furnish any service or facilities. In both cases the arrangement will be unlawful unless the payment, services, or facilities are available to other customers "on proportionately equal terms."

Two standards for defining the phrase have been suggested—one, the quantity of goods purchased, and the other the value of the services rendered. The former seems the safer to adopt. It is the more certain. If allowances are made equally proportionate to the quantities purchased by different customers there can be no question of the fairness of them. The valuation of services is quite uncertain. For instance, in advertising allowances will the comparative value of different footage, frontage, location, number of people passing the store, and type of store, comply with the provision? There is no assurance that it will.

16. Bonuses, prizes, premiums, and P. M.'s should be

discontinued. That seems to be the practical disposition of them. If not, then they must be made available "on proportionately equal terms to all other customers competing in the distribution of such products or commodities."

17. Subsection (c) forbids the payment of anything as a commission, brokerage, or other compensation except for services rendered in connection with the purchase or sale of commodities where the person receiving the payment is subject to the control of any party to the transaction other than the person by whom the compensation is paid.

18. If demonstrators are employed as regular employees of the seller and are sent into the trade, calling at different stores and in time getting around to all customers, the practice probably is not unlawful. Where, however, the seller contributes all, or part of, the salary of an employee of the buyer the practice is unlawful unless the same services are "accorded" all customers on proportionately equal terms.

Subsection (e) which applies also uses the word "purchasers" instead of the word "customers." It is possible, but improbable, that the word "purchasers" might be construed to apply to all who deal in the seller's goods, and in that event would require services on proportionately equal terms to all dealers whether or not they are customers of the seller.

19. Allowances for cooperative advertising, store displays and other forms of service are among the chief discriminations addressed by this law. Advertising service charges are mentioned specifically in the criminal section, so that one who persists in granting or receiving them has the added hazard of criminal prosecution. Under the criminal section such allowances must be available to all "competitors of the purchaser" in respect of a sale of goods of like grade, quality and *quantity*. The use of the phrase "competitors of the purchaser" in the criminal section makes possible a broad application of the law with respect to advertising service charges.

Under the civil sections, the allowances must be available on "proportionately equal terms" to all "customers competing in the distribution of such products." The only safe way to handle such allowances is to make them available to all customers in equal proportion to the quantity purchased. And, if those receiving the allowance do not use it for the purpose for which it is granted they are guilty of having knowingly received an unlawful discrimination.

Much discussion has arisen as to whether window display, cooperative advertising, counter display, and other forms of store advertising are completely outlawed by the Act unless offered to all customers whether the advertiser desires the service from all customers or would find it of value.

The Act refers to such allowances being "in connection with the processing, handling, sale, or offering for sale" of the advertiser's products. If that language applies only to the contract of purchase then advertising contracted separately would not be subject to the Act so long, of course, as it is not a *subterfuge or evasion*. If the language applies to more than the contract of sale and to the continuing fact of the advertiser's goods being sold in the stores where the advertising appears, then it would seem to forbid any advertising arrangement with one's customers unless the arrangement is available to all on proportionately equal terms.

There is, of course, a distinction between purchasing advertising service from one who is your customer and from a billboard company, newspaper, magazine, broadcasting company, or others who are not your customers. But, it is also true that store advertising has a value which bears no relation to the quantity of goods sold in the store. A store window on Times Square has an advertising value that has no relation whatever to the quantity of goods sold in that store.

The Act seems to over-reach itself when it forbids the purchase of advertising service in such stores at a price commensurate with the value of the service and unrelated to the purchase by the stores of the advertiser's goods. However, rank discriminations have been effected through so-called advertising allowances or services and it may have been intended to prohibit entirely advertising relations between sellers and their customers. At least, the language of the Act is such that it can have just that effect, and one who tests the application of it in those situations does so with consequent risk.

20. Consignment of goods under factor agreements is not thought to be a means of discrimination. The Supreme Court has held that such consignments when actually constituting the relationship of principal and agent do not violate the Anti-Trust Acts. That was prior to the passage of this Act which amends Section 2 of the Clayton Act. But, it is difficult to discover anything in this amendment which changes the Clayton Act so as to alter the Court's opinion. It is essential, however, that such consignments and the relationship of the parties to them be genuinely what they purport to be.

Under such consignment, the consignee is the agent of the principal. The acts of the agent, therefore, in the course of his employment, are the acts of the principal. The consignee, selling to the retail trade, is, in effect, the principal so selling. The effect of that is to broaden the field of the application of this law to the consignor. Retailers are his customers. The consignees must not discriminate between retailers to whom they sell lest the consignor be liable therefor. And, the direct retail customers of the consignor must not be favored over those sold through the consignees, or *vice versa*.

21. Existing contracts entered into prior to the enactment of the law which bind the seller to supply a commodity at prices or terms which would be unlawful under the Act if quoted presently by the seller are affected by the law.

There is some difference of opinion on this point, and a showing of some special property right in a particular case may change the situation as to applying the rule in that case. But, generally, prior contracts cannot prevent the application of the Anti-Trust Acts to compel discontinuance of unlawfully discriminatory practices.

Agreements usually pertaining in the trade are not such as to present a special property right. And, ordinarily, agreements must be regarded as having been made subject to the possibility that, at some future time, Congress might so assert its whole constitutional power in regulating interstate commerce as to render them unenforceable. If that is not sound as a principle,

> "the result would be that individuals and corporations could, by contracts between themselves, in anticipation of legislation, render of no avail the exercise by Congress, to the full extent authorized by the Constitution, of its power to regulate commerce. No power of Congress can be thus restricted. The mischiefs that would result from a different interpretation of the Constitution would be readily perceived." *Louisville & N. R. Co.* vs. *Mottley*, 219 U. S. 466.

22. The only certain way to avoid violations of this law and troublesome litigation is neither to grant nor receive any discrimination at all—to make all prices, terms, discounts, services, and facilities available to all customers. If, under present methods, you cannot profitably distribute your goods in that way, you must select a different system or method of distribution or, at considerable peril, run the risk of violating this law.

23. Everything in this statement is a matter of opinion which represents the best judgment of the writer at this time. It is intended to be general in scope and not to be acted upon without strict and careful application to all the facts in particular cases. That, in the final analysis, should be done by your own counsel. This statement will have accomplished enough to justify it, if it occasions your earnest consultation with your counsel.

More About the

Robinson-Patman Act

ADVICE to manufacturers of toilet goods, which undoubtedly applies equally to those of soaps, shampoos, disinfectants, insecticides, etc., especially as far as advertising allowances, quantity discounts, and the like are concerned, on the proper course under Robinson-Patman Act, has been issued by the Toilet Goods Association. Extracts from this information, to supplement that issued by the Proprietary Association, are published herewith:

P.M's.

"Attorneys for manufacturers and distributors alike have arrived at substantial unanimity that P.M's. paid by manufacturers to retailers and others are hereafter barred, unless paid to every retailer selling the item. This means that regarding P.M's. the question of 'proportionately available' does not enter into a discussion of the Act. To take a specific example:—If Cornwallis, Inc. pays a P.M. of 5c on each 50c jar of Cornwallis Vanishing Cream to Elective Chain Stores, Ltd., the same P.M. must be offered and paid to every retailer handling Cornwallis Cream competing with any one of the stores of Elective Chain Stores, Ltd.

Advertising Allowances

"The safest plan for advertising allowances would appear to be co-operative advertising on a strictly 50-50 basis in which the retailer pays 50% of the cost and the manufacturer 50% of the cost and this proposition should be made to all retailers alike regardless of the quantity of the merchandise handled. The difficulty of offering advertising allowances proportionate to the order is that whereas such an allowance may be possible and equitable on large orders from $100.00 up, it appears that it will be difficult if not impossible to make such advertising allowances, say on a $25.00 purchase. On a $25.00 purchase an advertising allowance of $2.50 only could be computed and this would not be sufficient to permit any newspaper advertising. If then, the $2.50 were allowed as an extra discount in lieu of advertising, it would be discrimination against the larger purchaser.

"If the 10% discount or $2.50 were not available as an advertising allowance on account of the smallness of the amount, then it would be discrimination against the smaller purchaser. This is one of the important questions of interpretation on which no advice with any degree of finality can be rendered because the last word in this matter will be spoken by the courts. It is within the realm of probability that a court might say that where such percentage allowances could not be availed of by the small independent purchaser, all advertising allowances would be banned.

"In connection with the same situation the pertinent inquiry has been made as to what are the rights of the manufacturer regarding so-called 'prestige' advertising. Is the manufacturer permitted to make an advertising allowance, say, to the Excelsior Department Store in a certain city, without making a similar allowance to the other stores in same city, assuming that the Excelsior Department Store has a vastly greater reputation and prestige than the other stores? It has long been the habit in the trade to take into consideration the position of a particular department store in making advertising allowances. It is our opinion that according to a strict construction of the law such 'prestige allowances' would no longer be permissible, as they would be considered as discriminatory under the Act.

"It is true that a manufacturer still retains the right to choose his advertising media and might consider the allowance to the Excelsior Department Store as a part of his advertising campaign. Nevertheless, such advertising is directly connected with the selling of the merchandise and therefore an advertising allowance to the Excelsior Department Store under the circumstances given which is not given to its immediate competitors, would be illegal.

Demonstrators

"Toilet good manufacturers are generally continuing their demonstrators but in nearly all cases are paying their demonstrators direct and said demonstrators are recognized as the employees of the manufacturer. Manufacturers generally allow such demonstrators only upon a yearly quota of sales which is clearly sufficient to defray the cost of the demonstrator. The question then occurs where the necessary quota for a yearly demonstrator is $5,000.00, whether a concern selling $500.00 worth of merchandise during the year is entitled to a demonstrator for one-tenth of the time. Apparently it is the purpose of the manufacturers in such cases to hold that where the service by the store will not permit the services of a whole time demonstrator, that no allowance will be made for a demonstrator for one-tenth of the time, as it is clear that such services would not be in proportion to the services of a whole time demonstrator. Furthermore, by fixing a distinct quota, the manufacturer makes the services of a demonstrator available to all concerns who can attain such a quota.

"For the reasons set forth in the discussion upon advertising allowances, it is among future possibilities that if the constitutionality of the Robinson-Patman Act is upheld and it is strictly enforced, that demonstrators may in time be entirely banned, on the theory that since they cannot be proportionately available to all customers, no retailer shall be in the superior position of employing a demonstrator where his immediate competitor, the small independent merchant, cannot do so. It should be noted that the Robinson-Patman Act neither specifically prohibits demonstrators nor requires that they be identified or tagged.

Catalogue Advertising

"Many toilet goods manufacturers have been approached by retail and wholesale distributors to take space in catalogues of such retailers or wholesalers, but it is thought that the use of these media requires the manufacturer to buy the same space or an equivalent space from every distributor.

"The purchase of catalogue space from retail and wholesale distributors is considered to be a dangerous practice unless the manufacturer is prepared to buy such space from every retail distributor or wholesaler publishing a catalogue. There is the possibility that the purchase of space in the catalogues of the mail order houses such as Sears, Roebuck & Co. and Montgomery Ward & Co., may offer a legal exception to the statements above made regarding the purchase of catalogue space generally.

"Query. Is there sufficient economy in the sale of products in the mail order catalogue to justify the purchase of space in such a catalogue on the assumption that sufficient direct sales volume can be proven from such insertions so as to justify the purchase of such space either as direct advertising or selling? The determination of the question of advertising allowances and the like may ultimately rest in decisions of the courts defining what accounting methods must be used in computing advertising and selling expenses.

"In this connection the case of the Federal Trade Commission 'In the Matter of the Goodyear Tire & Rubber Company' which had to do with the special prices accorded Sears Roebuck & Co. in the manufacture of tires, will be increasingly important. Although the Federal Trade Commission has rendered its opinion in this case, its determination is now up on appeal before the Circuit Court of Appeals and this appeal has not yet been argued.

Quantity Discounts

"Few attempts have been made in the trade to justify under the Act the extra 5% often given with a $100.00 order or the extra 10% often given with a $500.00 order. Remember that such discounts are legal even if given to all purchasers, only if they represent a 'due allowance for differences in the cost of manufacture, sale or delivery resulting from differing methods or quantities in which such commodities are to such purchasers sold or delivered'.

"If your discounts cannot meet this test, change them.

Rebates

"Rebates at the end of the year for quantity purchases throughout the years are banned. An extra discount for purchasing $5,000.00 worth of a commodity may be legal, but where a concern purchases $100.00 worth of the same commodity fifty times, it is clear that the manufacturer cannot claim the same economies in selling and delivery as might occur in a single $5,000.00 purchase.

"Therefore, while quantity discounts are legitimate, such quantity discounts are allowable only for actual sales and not for cumulative orders which the distributor has the option of giving or not giving."

EDITORIALS

(*From Page* 95)

if they are selling well, it is a difficult job to convince any maker that his products lack merit. But does he consider that if they were improved, the percentage of repeat business would likewise improve. There is no better time than right now, between seasons, for the insecticide manufacturer to subject his products to the acid test, —for his own satisfaction if for nothing else.

Whalers Strike

Ten thousand Norwegian whalers went on strike recently—when whaling ships were ready to start this year's hunt—in protest against Great Britain's refusal to comply with the Norwegian Government's proposal to limit the production of whale oil to 2,265,000 barrels. Norwegians opened negotiations with Great Britain about two months ago for an agreement on the whaling industry, since they fear the extermination of whales. British interests insisted on a total world output of 2,529,000 barrels of whale oil.

Chicago Assn. Meets

The Chicago Drug and Chemical Association held its first meeting of the fall season at the Chicago Athletic Association September 24th. Through the courtesy of United Air Lines a film, "Flying Across America in Sixteen Hours," was shown. Cyrus E. Holland of the air line company spoke briefly and explained various parts of the film. A. J. Rocca, president of the association, returned from an extended trip just in time to take charge of the meeting.

Candle Manufacture

By N. N. Godbole. Benares Hindu University, India. 29 pages. 1935. Illustrated. 6 x 9. Paper binding. Price $1.50. American Agents—Chemical Publishing Co. This publication includes a historical survey of the candle industry, discussions of the chief raw materials employed, and information on the manufacture of candles, with special attention to conditions in tropical regions. Tables containing practical information are appended.

Issue New Tax Regulations

Revised regulations covering imposition and collection of processing and excise taxes on certain oils, under section 702 of the 1936 Revenue Bill, were issued Sept. 16 by the U. S. Treasury Department. The new regulations, which were effective as of August 21, extend to fatty acids and salts of various vegetable oils the excise tax impositions which in the 1934 law were applicable only to the oils themselves.

Lather Soap Dispenser

Liquid soap is dispensed in the form of a lather by means of a cylinder fitted with a hollow piston. The cylinder has a valve for admitting the soap from the source of supply when the piston is moved. The piston is provided with means of admitting air to its interior, mixing the liquid soap and air to form a lather, and discharging the lather. William J. Dobkin. Canadian Patent No. 359,481.

Sanitary Supply Distributors Meet

The Associated Sanitary Supply Distributors of Chicago met at the Hamilton Club September 14th. Major attention was given to matters that had come up during the summer season when no meetings were held. The next meeting is scheduled for October 12.

Wax Removing Cleaner

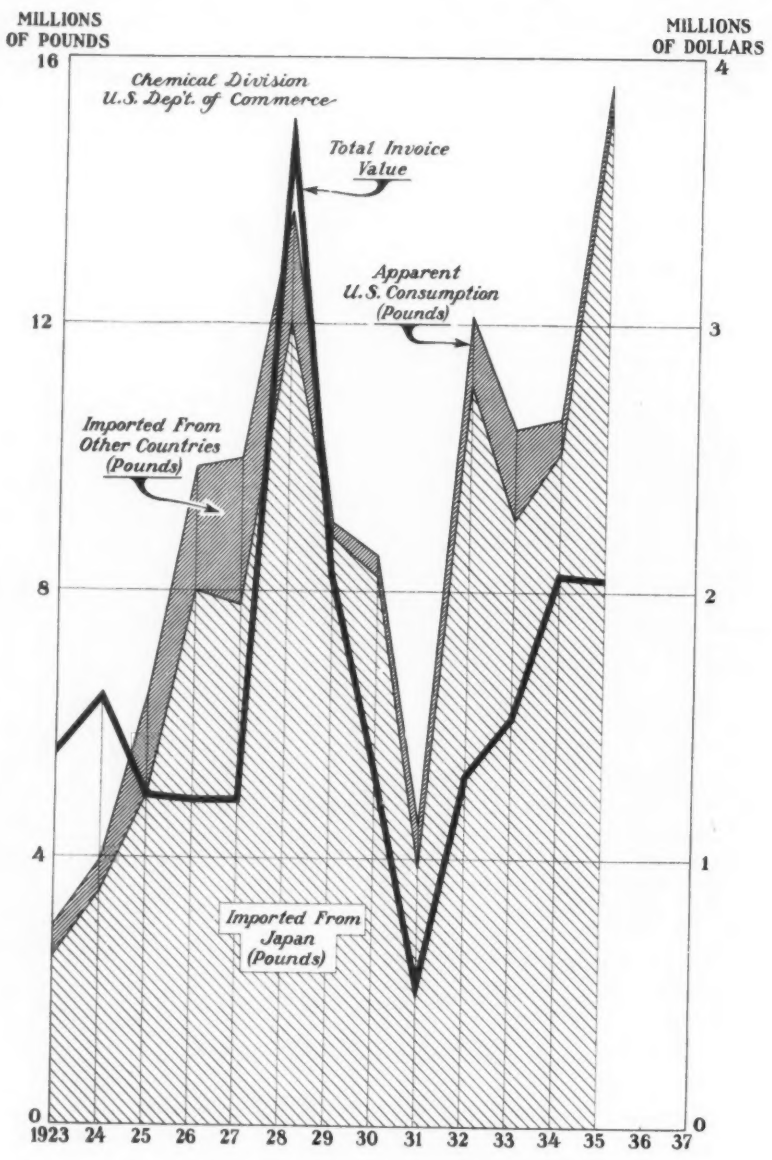
A cleaning composition which will remove waxes, resins, halogenated hydrocarbons, especially chloronaphthalene from the hands of insulator makers, contains tiertiary organic phosphates such as *p-* or *m-* tritolyl phosphate. Chemische Fabrik von Heyden A-G. German Patent No. 627,647.

Japanese Pyrethrum Crop at New High

THE 1936 pyrethrum crop in Japan is expected to reach a total of 29,500,000 pounds, according to estimates based on the output so far this year. This represents a substantial increase over the yield for previous years. In 1935 the output was 24,000,000 pounds and in 1934 only 17,189,000 pounds. For the four years ending 1933 an average yield of 12,285,000 pounds annually was obtained.

According to a report of the U. S. Bureau of Foreign and Domestic Commerce the insecticidal quality of the crop is expected to be about the same as last year's, which was considered above average. This report, however, is contradicted by some importers who state that much of the output from certain producing areas suffered rain damage with consequent lowering of toxicity.

The demand for new crop pyrethrum has so far been reported slack. Foreign buyers, particularly those from the United States, are said to be avoiding commitments, anticipating possible further declines in the already unusually low prices. It is estimated that 11,000,000 pounds of the new crop must be sold to the United States to avoid an unmanagable surplus and subsequent price demoralization. On account of the absolute lack of foreign demand for it and its inferior strength, all old stock must be disposed of in the domestic market, it seems. A more detailed report by Vice Consul Walter P. McConaughy, Kobe, is available to American firms and individuals upon request to the Chemical Division, U S. Bureau of Foreign and Domestic Commerce, Washington, D. C.



U. S. Imports and Apparent Consumption of Pyrethrum—1923-1935 Inclusive.

American Pyrethrum Prospects

Whether pyrethrum will be a future crop in the United States depends on whether new machinery can be developed to compete with Japanese coolie labor; or whether the government will help the farmer by providing a subsidy for this crop. Pyrethrum will grow in many parts of the country, but as yet the labor problem of harvesting the crop on a basis to compete with Japanese prices, remains unsolved. At present the industry is highly speculative because of the great variability in crop volume. The Pyrethrum Association hopes to introduce stabilizing factors, as well as to set standards of quality and conduct co-operative research. *Business Week*, August 29, 1936.

Synthetic Waxes

Their Properties and Uses in Commercial Products

(Part II)

By Charles S. Glickman

AS we have mentioned before, these synthetic waxes are applicable to a multitude of purposes and formulae describing their use in a variety of compositions follow:

Shoe Finishes

Patent Leather Wax—This is a solid polishing wax used in factories for the polishing of patent leather finishes. It is applied on a cloth buffing wheel and is buffed for attainment of maximum gloss.

Wax No. 1 or 6	90 parts by weight
Montan Wax	10 parts by weight
Rosin X	4 parts by weight
Paraffin	5 parts by weight
Ceresine	15 parts by weight
Oil Black	q.s. parts by weight

Procedure: The waxes are melted over slow heat and the dye added in small quantities with stirring till dissolved. The mixture is then thoroughly mixed and poured hot into molds.

Stick Shoe Polish—This is representative of the small pencil type forms of shoe polish carried in the purse or pocket. It is rubbed directly upon the leather and then buffed with a soft cloth.

Stearic Acid	60 parts by weight
Ceresine	15 parts by weight
Wax No. 1 or 6	9 parts by weight
Oil Black	q.s. parts by weight

Procedure: Same as for Patent Leather Wax.

Burnishing Wax—This is a solid type of wax polish used for "finishing off" soles and sole edges after cutting and application of an edge blacking.

Wax No. 1 or 7	8 parts by weight
Shellac Wax	4 parts by weight
Montan	1 part by weight
Ozokerite	1½ parts by weight
Rosin	½ part by weight
Paraffin	½ part by weight
Oil Dye	q.s. parts by weight

Procedure: Same as for Patent Leather Wax.

Crayon Wax—This is used for repairing small cuts and other marks resulting from factory handling of shoes during the various manufacturing processes. It is generally applied hot upon the tip of a spatula and is then buffed to maximum gloss.

Stearic Acid	60 parts by weight
Wax No. 1 or 7	10 parts by weight
Ceresine	7½ parts by weight
Wax No. 4 or 5	7½ parts by weight
Ozokerite	1½ parts by weight
Oil Dye	q.s. parts by weight

Procedure: Same as for Patent Leather Wax.

Edge Blacking—This is an emulsified type of wax polish which is applied to the edge of the sole after cutting to give a smooth and shiny appearance. It is generally ironed by a hot piece of metal till glossy and smooth.

Wax No. 1	5 lbs.
Wax No. 2	1 lb.
Chip Soap	½ lb.
Water	3 gal.
T. S. P.	¼ lb.
Borax	¼ lb.
Nigrosine Dye	2 lbs.
Water	1 gal.

Procedure: Melt the waxes and disperse the soap in the melted wax with stirring till homogeneous. To this hot mixture add the hot solution of alkalies and stir till smooth. The dye should be dissolved in hot water, filtered and stirred into the hot wax emulsion and the entire mixture stirred till cold.

Note: It is possible to substitute in place of the soap, Wax No. 2 and alkali, about ½ lb. of the diethylene glycol of stearic acid described in a previous paragraph. With the aid of this emulsifier, the use of alkali would be superfluous.

Emulsified Shoe Cream—This is representative of the so-called wax emulsions used for shoe creams and polishes of various sorts. It is generally applied with a cloth and buffed till shiny. It can also be used in furniture and auto polishes with small adaptations.

Wax No. 4 or 5	10 parts by weight
Candelilla	30 parts by weight
Wax No. 1 or 7	40 parts by weight
Diethylene Glycol Ester of Stearic Acid	25 parts by weight
Turpentine	10 parts by weight
Water	500 parts by weight
Dye-water Sol.	q.s. parts by weight

Procedure: The waxes should be slowly melted together and when thoroughly mixed the turpentine added and stirred till the mixture is smooth and clear. It should be poured into the hot water solution of dye which has been previously filtered and the mixture stirred till cold.

Floor Polishes

SYNTHETIC waxes can be utilized to a very great extent in the manufacture of paste and liquid floor polishes. They blend easily with the natural waxes, are more soluble in the standard solvents, absorb dyes more readily, have a superior capacity for taking on a high polish, do not form gritty sediments either in paste or solution form and do not lose their original consistency or appearance after repeated remeltings.

The following formulae illustrate some of the products to which synthetic waxes are applicable Account has been taken of temperature variations and the paste waxes are therefore compensated for this variation. The

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procedures in all but the dance floor wax are the same and will therefore be stated only once.

Winter Paste Wax

Wax No. 1 or 6	66½ lbs.
Ozokerite	108½ lbs.
Paraffin (x)	187 lbs.
Naphtha	42 gal.
Dye	q.s.

Procedure: Melt the waxes with slow heat and stir till thoroughly mixed. Add solvent and dye slowly with constant stirring till thoroughly mixed. Strain and pour when cool into containers.

Summer Paste Wax

Wax No. 1 or 6	82 lbs.
Ozokerite	134 lbs.
Paraffin (x)	231 lbs.
Naphtha	50 gal.
Dye	q.s.

Fall Paste Wax

Wax No. 1 or 6	74 lbs.
Ozokerite	120½ lbs.
Paraffin (x)	208 lbs.
Naphtha	44 gal.
Dye	q.s.

Cheap Grade Paste Wax

Wax No. 1 or 6	31¼ lbs.
Ozokerite	54¼ lbs.
Paraffin (x)	145¼ lbs.
Candelilla	104¾ lbs.
Naphtha	41 gal.
Dye	q.s.

Liquid Floor Wax

Wax No. 1 or 6	16 lbs.
Ozokerite	19 lbs.
Paraffin (x)	28 lbs.
Naphtha	75 gal.
Dye	q.s.

Liquid Floor Wax

Wax No. 5	6 lbs.
Ozokerite	6 lbs.
Naphtha	88 gal.
Dye	q.s.

Liquid Floor Wax

Wax No. 5	12 lbs.
Naphtha	88 gal.
Dye	q.s.

Liquid Floor Wax

Wax No. 5	6 lbs.
Paraffin (x)	6 lbs.
Naphtha	88 gal.
Dye	q.s.

Dance Floor Wax

Wax No. 1 or 6	15 lbs.
Paraffin	5 lbs.
Rice Flour	80 lbs.

Procedure: Melt the waxes, stir and powder when cold then mix with rice flour.

Note: It will be seen that most of the formulae using paraffin are marked (x). This is to indicate that in these preparations the type of synthetic wax described as being prepared from paraffin by the addition of an organo-metallic compound can be substituted with an increase in hardness of the product and its finish at a slight rise in cost of raw materials.

Automobile Polishes

SYNTHETIC waxes can be utilized in the preparation of a variety of automobile polishes and cleaners. Their high lustre. ease of emulsification. freedom from gritty sediments and high melting point lend themselves to incorporation into this line of industrial cleaners and polishes. Several of the typical products used for this purpose are described in the following furmulae:

Paste Abrasive Polish—This is representative of the typical cleaner used as a pre-treatment on automobile finishes before polishing with an automobile paste wax. It is supposed to remove all oxidized lacquer and so called "road-haze" and leave a thin film of wax on the lacquer surface.

Kerosene	32 gal.
Wax No. 2	27 lbs.
Wax No. 9	50½ lbs.
Ozokerite	44 lbs.
Potassium Carbonate	3¼ lbs.
T. S. P.	3¼ lbs.
Chip Soap	16½ lbs.
Water	12 gal.
Bentonite	16 lbs.
Cream Tripoli	131 lbs.
Silica (300 Mesh)	65 lbs.
Water	14½ gal.

Procedure: Melt the waxes and dissolve hot in the kerosene and filter. To this add the mixture of alkalies in hot water together with the dissolved soap and the mixture of abrasives in water prepared by mixing the abrasives and Bentonite and stirring with the water till smooth and free from lumps. The entire mixture should then be stirred till smooth and homogeneous and packed hot into suitable containers.

Liquid Oil and Wax Polish—This is representative of the liquid non-abrasive automobile polish that is used not for cleaning purposes but for polishing. It leaves a thin film of dry oil and wax on the surface—a film of maximum gloss but not long-lasting in effect. Best used on new cars where there is little encrusted dirt or "road-haze."

Castor Oil Tech.	8¾ gal.
Spindle Oil	35⅞ gal.
Naphtha	2½ gal.
Alcohol (C. D. No. 5)	8⅞ gal.
Water	66½ gal.
Potassium Carb. Sol.	1¾ lbs.
Wax No. 9 Sol.	6⅛ gal.
Chip Soap	43¾ lbs.

Note: The potassium carbonate solution is prepared by saturating a solution of cold water with pure potassium carbonate. The Wax No. 9 solution is prepared by dissolving 1½ lbs. of the wax to a gallon of naphtha, and filtering.

Procedure: The chip soap, potassium carbonate solution and water are mixed thoroughly till the soap is completely dissolved. Heat may be used if necessary. The alcohol and castor oil are mixed together thoroughly. The spindle oil, naphtha and Wax No. 9 solution are also mixed thoroughly and then the mixtures combined cold and passed through a colloid mill or homogenizer till completely emulsified.

Auto Paste Wax

Wax No. 1 or 6	6½ lbs.
Ceresine	3½ lbs.
Naphtha	6¼ gal.

Procedure: Same as for Paste Floor Waxes.

Auto Paste Wax

Wax No. 1 or 6	75 lbs.
Ozokerite	100 lbs.
Naphtha	45 gal.

Procedure: Same as above.

Auto Paste Wax

Wax No. 1 or 6	13¾ lbs.
No. 3 Carnauba Wax	5¾ lbs.
Ozokerite	8½ lbs.
Naphtha	6¼ gal.

Procedure: Same as above.

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Miscellaneous Formulae

THE following formulae do not fall under any definite heading and are therefore listed for whatever they are worth. The first formula is one worthy of special notice as it is in itself a phenomenon which in the author's experience with waxes and wax products has never been encountered before. It is a bright drying solvent wax solution and can best be accounted for by the theory that the wax is so finely dispersed—possibly in an ultracolloidal form—that upon drying it forms a film that is practically homogeneous.

Bright Drying Solvent Wax Solution

Wax No. 5	30 lbs.
Naphtha	70 lbs.

Procedure: The same as for Liquid Floor Polishes.

Synthetic Wax Emulsion—This type of emulsion is suitable as a base for furniture, automobile, shoe and other similar types of wax emulsion polishes.

Wax No. 1	40 lbs.
Wax No. 2	16 lbs.
Chip Soap	8 lbs.
Water	400 lbs.
T. S. P.	4 lbs.
Borax	4 lbs.

Procedure: The waxes and soap are melted and thoroughly mixed. The alkalies are dissolved in boiling water and the wax solution slowly added with stirring till cold.

Textile Wax Emulsion—This type of emulsion is suitable for textile impregnation and sizing for paper.

Wax No. 7	10 lbs.
Chip Soap	3 lbs.
Water	87 lbs.

Procedure: The wax is melted and mixed thoroughly with the soap till the mixture is smooth. The water is heated to boiling and the wax added slowly with stirring till cold.

Cosmetic Specialties

THE purity and superior emulsification properties of the synthetic waxes make their use in cosmetics a logical one. In several of the following formulae, the diethylene glycol ester of stearic acid will be used as an emulsification agent. Other of the synthetic waxes will be described in other uses.

Cheap Greaseless Cold Cream

Diethylene Glycol Ester of Stearic Acid	12 parts
Mineral Oil—Technical Grade	5 parts
Paraffin	15 parts
Petrolatum-white	10 parts
Water	100 parts
Borax	3 parts

Procedure: The wax, ester, petrolatum and mineral oil are melted, the water and borax heated to boiling and the wax added with stirring till cool.

Hand Lotion

Water	2¾ gal.
Diethylene Glycol Ester of Stearic Acid	15 oz.
Gum Tragacanth	4 oz.
Mineral Oil	32 oz.
Carbitol	2 oz.
Sodium Benzoate	q.s.

Procedure: Melt the glycol ester and stir into one gallon of boiling water. Dissolve the gum in the remainder of the water then strain to free from lumps. Then dissolve sodium benzoate in gum solution. Cool the ester solution and stir into the gum solution. Add mineral oil and carbitol with rapid stirring till emulsion is smooth and creamy.

Lipsticks—as those of us who have had occasion to make them know—are composed of two main classes of materials—coloring matter and vehicle. The latter is the part in which synthetic waxes can be utilized to great advantage in place of paraffin, spermaceti and beeswax. For example a standard formula will be taken and all available substitutes included.

Original Formula		Revised Formula	
White Beeswax	30	Wax No. 4	25
Hydrogenated Cotton-seed Oil	8	Hydrogenated Cotton-seed Oil	8
Cocoa Butter	7		
Lanolin Absorption Base	20		
Soft White Pet	15		
Perfume	9	all else the same	
Bromo Acid	3		
Preservative	1		
Coloring Matter	10		

The use of synthetic waxes in place of natural products is an interesting study and the field is still a virgin one as many products are yet to be investigated. It is quite possible that they may some day fill an important part in the manufacture of rubless water wax emulsions as they seem to be the logical material for this type of product.

Liquid Soap Dispensers

(*From Page 36*)

device comprising a hollow body, a manually operable plunger slidable in the body, a piston slidable in the body, stops limiting the motion of the piston, a discharge opening through the body arranged to be covered by the skirt of the piston in one position, a check valve carried by the piston permitting the fluid to pass freely to the space between the plunger and piston, and a spring urging the piston to the position in which it covers the discharge opening.

85. JONES, 1,916,513, July 4, 1933. A dispensing device including: an outlet member having an upper chamber and a lower chamber with an outlet opening at the lower end thereof, there being upper and lower valve seats at the respective upper and lower ends of the lower chamber; a body in the lower chamber having an upper valve closure member adapted to engage the upper valve seat and a lower valve closure member adapted to close the lower valve seat; an upper stem extending from the body into the upper chamber, there being projections on the stem for guiding the same longitudinally of the outlet member; an actuating stem extending outwardly from the body through the outlet opening projections on the body for guiding it longitudinally with respect to the outlet member; and a spring for normally moving the body in downward direction to resiliently maintain engagement of said lower valve closure member with the lower valve seat.

86. RENZENHAUSEN, 1,919,257, July 25, 1933. In a liquid soap dispensing apparatus, a container having an

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Sectorome No. 6	Sectorome No. 66

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open neck, a cap having engagement with the container for closure of the neck thereof, the cap having a socket, means including a conduit for accumulating fluid pressure in the container, the conduit having an end presented downwardly through the socket, and a chambered member mounted on the cap in communication with the conduit, the member having a port in its lateral wall for diverting the entering fluid for preventing agitation of the container contents.

87. KIRK, 1,920,867, August 1, 1933. A dispensing apparatus comprising a cylinder provided with a discharge opening; a piston reciprocably mounted in the cylinder; piston operating means; a spring for urging the operating means in one direction; and connections between the piston and the operating means adapted to move the piston to perform automatically both a discharge stroke and part of a succeeding return stroke during movement of said operating means under the urge of the spring.

88. WATROUS, 1,922,647, August 15, 1933. A valve for liquid soap dispensers having a cylindrical body portion with an outwardly projecting flange and having an integrally formed lug spaced from the flange with an engaging face at an acute angle to the flange, a threaded pipe connection at the inner end of the body portion and at right angles thereto, a pipe for engagement with the connection with means for placing a tension on the pipe.

89. SEIDEL, 1,936,526, November 21, 1933. A portable liquid dispenser comprising a container having at its top a cover and at its bottom a base with an opening therein, a spout secured to the cover, tie rods for securing the cover and base together and to the container, a pump cylinder having a peripheral flange at one end removably secured to the base and closing the opening therein, there being an opening in the walls of the cylinder intermediate its ends, a discharge pipe connecting the cylinder with the spout, a piston in the cylinder adapted to be moved downwardly to a point below the opening therein whereby liquid in the container may flow by gravity through the said opening to fill the cylinder and be forced out through the discharge pipe when the piston is moved upwardly, and means exteriorly of the base and in vertical alignment with the spout for operating the piston.

90. HOLMES, 1,938,181, December 5, 1933. A liquid soap dispensing apparatus including a cup-like receptacle having a valve controlled outlet at its lower end, means to support the receptacle and a bottle adapted to be received and supported in inverted position within the receptacle, the receptacle being tapered to frictionally engage the bottle and the bottle having embossed characters thereon at that portion thereof which engages the receptacle whereby to assure venting access of air to the receptacle at a point below the point of engagement with the bottle therewith.

91. KOPPELMAN, 1,938,292, December 5, 1933. A dispensing valve having a body from which is extended a reciprocable actuating stem normally pressed outwardly, a bell crank operator having one arm loosely engaging the stem, a bracket furnishing a pivotal mounting for the operator, and means extending laterally from the body in connection with the source of liquid supply for the valve and in connection with the bracket for sustaining the latter.

92. HILLYARD, 1,939,980, December 19, 1933. A liquid dispenser having a support, liquid containing means on the support, means controlling flow of liquid from the liquid containing means, a pair of rods carried by the support for actuating the liquid controlling means, a bracket member associated with the support, for mounting the lower ends of the rods, cam segments pivotally mounted on the bracket member and engaging the rods, lever arms connected with the segments and yokes adjustably supported on the ends of the arms to actuate the segments.

93. HILLYARD, 1,939,981, December 19, 1933. A liquid dispenser having a valve controlling flow of liquid from the dispenser, a rod operably connected with the valve, a foot lever for actuating the rod, means for hinging the foot lever to the rod, and means for reciprocably supporting the rod including means for rotatably supporting the rod whereby the foot lever is selectively positioned accurately with respect to the rod.

94. MCADAM, 1,940,138, December 19, 1933. A dispenser comprising a container having a bottom and a discharge opening in its side wall above the bottom, a rotatable shaft extending through the bottom, means externally of the container for rotating the shaft, a plurality of curved blades extended in different directions from the shaft, the said blades being positioned so their ends alternately close the discharge opening in the container, and a plurality of upright members carried by the blades.

95. LUPO, 1,941,751, January 2, 1934. A fountain brush having a handle providing a reservoir and a supply intake opening for the latter, the structure including an air inlet for the reservoir, a material discharge outlet for the reservoir and intermediate its ends, a peripherally arranged circumferentially shiftable band for normally closing the intake, the band being provided with an opening for registry with the intake to form a channel for removably receiving the spout of a container carrying material to be supplied to the reservoir, and spring controlled means mounted axially of the structure and common to the air inlet and discharge outlet for normally and simultaneously closing them.

96. HILLYARD, 1,945,111, January 30, 1934. A soap dispenser having a container including a bottom having a radial discharge conduit and an axial opening intersected by the conduit to divide the opening into upper and lower portions, a valve seat in the upper portion of the opening, an upstanding boss on the bottom sur-

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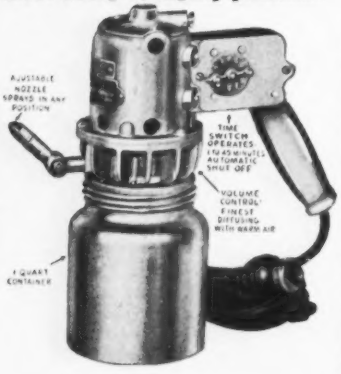
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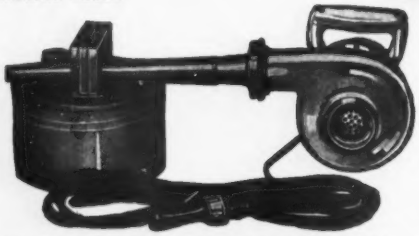

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rounding the valve seat and having a lateral port, a top for the container, a sleeve interposed between the top and bottom, means for clamping the sleeve between the top and bottom including a rod secured to the boss, a valve normally engaging the seat and having a stem extending through and closing the lower portion of the opening to effect flow of liquid from the container through the radial port and into the conduit when the valve is open, and means for operating the valve.

97. HILLYARD, 1,947,086, February 13, 1934. A fluid soap dispenser comprising a base, a tubular standard carried by the base, a fluid container supported on the upper end of the standard and having an outlet port, a valve normally closing the port, a reciprocable member operable in the standard, means for directly connecting the upper end of the reciprocable member to the valve, a foot pedal pivotally supported on the base, and means operably connecting the foot pedal with the lower end of the reciprocable member so that operation of the foot pedal directly opens the valve to allow fluid to flow through the port.

98. LEVERNIEN, 1,949,315, February 27, 1934. A liquid soap dispenser comprising a standard, a liquid reservoir mounted thereon and comprising several parts, a pump carried by the standard, a tube connecting the parts of the reservoir and the pump barrel in assembled relation, a piston rod for the pump reciprocating through the tube, and manually operated means carried by the standard for operating the pump.

99. HARDCASTLE, 1,949,387, February 27, 1934. A fluid soap dispenser comprising a bracket forming a vessel holder and having a passage therefrom for the liquid from the vessel, the bracket having means for suspension centrally located on the back above the centre of gravity, a cup closing up to the bracket and centrally located on the back and communicating with the passage, a handle on the cup below the spout and shaped to centre under the spout a receptacle placed against it, the lower extremity of the back being substantially as wide as the projection of the cup from the back.

100. JONES, 2,014,652, Sept. 17, 1935. A valve for a dispensing liquid soap having a container for holding a supply of fluid, including: walls forming a primary chamber connected to the container so as to receive fluid therefrom; walls forming a secondary chamber connected to the primary chamber so as to receive fluid therefrom, said secondary chamber having an outlet; an inner valve means disposed between the chambers in normally open condition; outer valve means normally closing the outlet of the secondary chamber; and actuating means adapted to be moved from inactive position to active position, the actuating means extending through the secondary chamber and the actuating means being connected to the valve means so as to open the outer valve means and close the inner valve means during its movement from inactive position toward active position.

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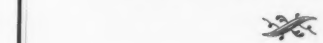

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NEWS.....

James Varley Injured

James Varley, vice-president and general manager of Baird & McGuire, Inc., St. Louis, was severely injured in an automobile accident on Sunday, Sept. 20, near Highland, Ill. when the car in which he was a passenger skidded and turned over. Mr. Varley was taken to St. Joseph's Hospital, Highland, with several fractured ribs, a broken shoulder, and other injuries. Jack Varley, Baird & McGuire plant manager at St. Louis, and son of Mr. Varley, arrived in Highland shortly after the accident. Mrs. Varley who is in Europe, was notified and is returning home. C. C. Baird, president of Baird & McGuire, Inc. who is located at the Holbrook, Mass., plant, went to Highland on Sept. 21 when notified of the accident.

McCormick Recess Plan

Employees of McCormick & Co. now enjoy two daily recess periods as a result of a plan put into operation by C. P. McCormick, president of the company. The ten minute recess periods come at 10.00 A.M. and 2.00 P.M. During this time employees go to the recreation hall where tea is served. It is said that this innovation has increased production of the office and manufacturing departments by approximately 5 per cent.

Clorox Income Higher

Net profit of Clorox Chemical Co., Oakland, Calif., for the year ended June 30, 1936, totaled $325,313, or $2.97 a share, as compared with $313,113, or $2.86 a share, in the previous year.

Derris Insecticides in Java

Joho Derris Factory has started operations in Bandoeng, Java, manufacturing a variety of derris insecticides which are sold under the brand name "Desid." Among the products are a household spray, plant powder, dog soap and a liquid soap for use on cattle. The concern also controls an estate where derris slips are cultivated for sale to planters.

Frank E. Furst Dies

Frank E. Furst, president of the Furst-McNess Co., Freeport, Ill., died Sunday night, Sept. 6, as a result of

injuries received in an automobile crash on state highway No. 26 about five miles south of Freeport. His car was in a head-on collision with a car driven by a Mr. Brady of St. Louis. Both Brady and his wife, who accompanied him, were killed in the crash. Mr. Furst was accompanied by his daughter-in-law, Mrs. Charles Furst, who was injured. Both were rushed to the Deaconess Hospital, Freeport, where Mr. Furst died.

Frank Furst, widely known in the insecticide, stock remedy, and household products fields, was born on a farm in Lancaster Township, Illinois, March 12, 1874. He attended the University of Illinois and the University of Michigan. He studied law and was admitted to the bar, but never engaged in practice. He later entered the employ of the W. T. Rawleigh Co., Freeport, in time becoming general manager. In February, 1908, he left Rawleigh and founded the Furst-McNess Co., with F. W. McNess. From the small beginning, the company expanded until today it is the third largest direct-to-consumer household products firm in the world. In 1920, a new $250,000 factory was built at Freeport. In 1930, a $150,000 addition to the plant was put up. The company employs 200 people, and has offices in all sections of the United States and Canada, and some abroad.

Funeral services were held on Sept. 10, from the Furst home at Freeport. Rev. David L. McNary, pastor of the First Presbyterian Church of Freeport, officiated. Mr. Furst is survived by two sons, Charles W. Furst and Harry R. Furst, and his wife, Mrs. Florence Wilkins Furst. Mr. Furst was a noted collector of pictures, his collection being widely known. He was also a member of the church choir and a musician of some note, as well as an ardent golfer. Only last month, in company with his son, Charles Furst, he won the annual father-son tournament at Olympia Fields, Chicago.

Para Freight Rates Up

Higher freight rates have been put into effect by the Delaware, Lackawanna & Western railroad on shipments of paradichlorbenzol from Syracuse and Solvay to Niagara Falls and Suspension Bridge on the New York Central and West Shore railroads. The new higher rates have been approved by the New York Public Service Commission and go into effect October 5.

George G. Ford Dies

George G. Ford, co-founder in 1897 of Rochester Germicide Co., died in the Genesee Hospital, Rochester, N. Y., Sept. 8. Mr. Ford had devoted his whole time in recent years to civic and philanthropic activities, serving as chairman of the Rochester Community Chest from 1925 until 1933 when he retired from all active work. Mr. Ford was 72 years old at the time of his death. He is survived by his wife, Carrie F. Ford; a son, Elliot P. Ford; one daughter, Mrs. George Francis of Paden City, W. Va., and one grandson, George H. Francis.

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5305

Insecticide-Disinfectant Meeting — Dec. 7-8 in Philadelphia

THE twenty-third annual meeting of the National Association of Insecticide & Disinfectant Manufacturers will be held December 7 and 8 at the Penn Athletic Club, Philadelphia. The meeting will last for two days, closing with the annual dinner on the evening of December 8, and will be preceded by the annual meeting of the Board of Governors on Sunday evening, December 6. These plans were announced by W. B. Eddy of the Rochester Germicide Co., president of the Association, following a regular quarterly meeting of the Board at Baltimore on Sept. 22.

The meeting of the Board of Governors was held at "Ye Olde English Tea House" at the plant of McCormick & Co., Baltimore, the Governors being the guests of Charles P. McCormick, president of that company. Following the Board meeting, a Maryland chicken dinner was served at the famous Tea House. After dinner, a Monte Carlo night was held with a gambling casino layout and stage money, and prizes for the winners. Board members who were present included President W. B. Eddy, W. G. Griesemer of Black Flag Co.; H. M. Clark, of Dr. Hess & Clark, Inc.; John Wright, secretary; H. W. Hamilton of White Tar Co.; Wallace Thomas of Gulf Refining Co.; Henry Nelson of Chemical Supply Co.; C. P. McCormick of McCormick & Co.; Russell H. Young of Davies-Young Soap Co.; Dr. Robert C. White of Robert C. White Co. Heads of committees who attended included Melvin Fuld of Fuld Bros., Inc.; A. L. van Ameringen of van Ameringen-Haebler; Clarence Weirick of C. B. Dolge Co.; A. E. Badertscher of McCormick & Co.; Grant A. Dorland of MacNair-Dorland Co. About twenty-five of the executives and department heads of McCormick & Co. were present at the chicken dinner and the evening festivities.

At the meeting of the Board, much time was given over to progress reports of various committees and a discussion of the line along which the work should be conducted. A general discussion of the need for a complete set of specifications for insecticides, disinfectants, and general sanitary products followed the recommendation by President Eddy that the Association proceed as quickly as possible toward the drawing up of such specifications. He urged close cooperation with the Department of Agriculture in this work and with other public agencies, especially those purchasing these products. The matter of a specification seal-of-approval to be issued by the Association was also taken up, the members being split about equally for and against this plan. The matter will be discussed fully on the floor of the annual meeting in December.

The Board also discussed at some length the question of the 1937 summer meeting and finally went on record as recommending to the Association membership at the annual meeting that the meeting be held during a trip to Bermuda about the first of June, 1937. Some discussion of the consideration of the classification of fluoride insecticides by the N. Y. State Board of Pharmacy was heard. The matter is to be taken up with the State Board by the Secretary.

Committees in charge of the 1937 meeting at Philadelphia are John Wright, general convention committee chairman; H. W. Hamilton, chairman of program committee; John Powell, chairman of arrangements and finances; A. L. van Ameringen, chairman of entertainment; Ira P. Mac Nair, chairman publicity. Dr. Robert C. White is a special member of the convention to aid and advise all committee chairmen when needed. Dr. White, who is comptroller of the city of Philadelphia, has arranged for several attractions for those attending the annual meeting while in Philadelphia. He has also arranged for special rates for rooms and suites at the Warwick Hotel which adjoins the Penn A. C. for the wives and families of those attending the meeting. Also special low rates for rooms and suites at the Penn A. C. during the meeting will be announced.

◆

Harry Cole in Hospital

Harry W. Cole, secretary of Baird & McGuire, Inc., Holbrook, Mass., and a member of the board of governors of the National Association of Insecticide & Disinfectant Manufacturers, has been confined to the Quincy Hospital, Quincy, Mass. during recent weeks under treatment for a stomach ailment from which he has been suffering.

◆

Starts Insecticide Firm

Orin S. Doolittle, formerly with the Solvay Sales Corp., and later with American Fluoride Co., has recently started his own business at 388 Palisades Avenue, Yonkers, New York. He is manufacturing various insecticides and is dealing in industrial chemicals.

◆

Prentiss Leases Warehouse

R. J. Prentiss & Co., New York, have just leased property at King St., Brooklyn, having a railroad siding and on direct interstate truck lines out of New York, for the establishment of a plant and warehouse. The new unit will have complete milling and manufacturing facilities for the production of drugs and insecticides.

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Wants Insecticide Agency

A concern in Tunis, Tunisia, is interested in securing an agency for sale of American insecticides. Interested parties may communicate through the U. S. Bureau of Foreign & Domestic Commerce, mentioning inquiry number 1441.

◆

Janitor Supply Firm Moves

C. A. Wall Co., formerly of 2001 Pierce St., San Francisco, is now located at 3726 Webster St.

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What with babies, dishes, laundry and answering doorbells . . . Mrs. America's life is busy enough without having to spray every half hour during the insect season. She's learning that the proper way to spray is *up—not horizontally or down.* But what's the use of a little pop-gun sprayer? It can't kill insects because it can't reach them!

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Make your insecticide more effective by supplying a better sprayer. The Hudson Fog is the perfect little model for household use. With every pump stroke it throws a blast of fine, killing mist clear up to the ceiling—completely fills the room so that insects can't escape it. It's a far better sprayer—and inexpensive enough, too ! Why not try it and see for yourself?

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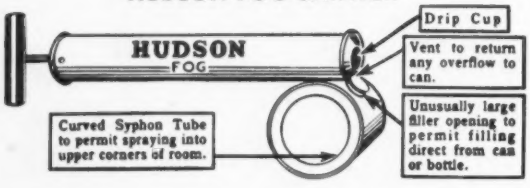
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Exterminators to Meet in Cleveland Oct. 26-28

THE National Association of Exterminators and Fumigators will hold its annual convention on Oct. 26-27-28, in the Hotel Statler, Cleveland. All members of the industry, whether active in the Association or not, have been invited by the directors of the association to attend. An important feature of the meeting will be "research clinics"—discussional groups for specific problems on rodents, termites, etc., headed by recognized authorities in each field. The program includes various forms of entertainment for the guests and their wives, among which are card parties, sight seeing trips, and a trip through Nela Park.

H. K. Steckel is chairman of the convention committee, with R. W. Laing of Cleveland in charge of local arrangements. The members of the committee are: Lawrence A. McKenna, secretary; Albert M. Akers, treasurer; E. W. Peterson, Tracy Reynolds, J. W. Speed, H. A. Curry, attendance and registration; Lawrence A. McKenna, Paul McKenna, G. A. Slessinger, entertainment; Harry Studier, publicity; Mrs. R. W. Laing, Mrs. A. M. Akers, Mrs. L. A. McKenna, Miss Dora McKenna, Mrs. H. A. Curry, Mrs. W. E. Kirschner, ladies' committee.

The complete program for the three days is scheduled as follows:

OCTOBER 26, 1936

Morning: 10:00-12:30

Registration.

Convention Called to Order — H. K. Steckel, Tornado Mfg. Co., Columbus, general chairman.

Greeting—Robert W. Laing, Laing Exterminating Co., Cleveland.

Address of Welcome—Hon. Harold H. Burton, Mayor of Cleveland.

Response—Harry J. Hammond, President of Milwaukee Association of Exterminators and Fumigators, J. P. Hammond & Son, Milwaukee.

Greetings — Lawrence A. McKenna, President Ohio Association of Exterminators and Fumigators, A. G. Exterminating Co., Cleveland.

Response—Wilbur F. Smith, President of Exterminators and Fumigators Association of California, Alderman Co., Pasadena.

Address of President—C. Norman Dold, Rose Exterminator Co., Chicago.

President C. Norman Dold

Report of the Secretary—William O. Buettner, President of Associated Exterminators and Fumigators of New York, Oscar G. Buettner & Son, Brooklyn.

Report of the Treasurer—H. K. Steckel.

Committee Reports—By Chairmen of the committees:

A—Materials, Standards & Methods—George Hockenyos.

B—Ethics—Jesse M. Miller.

C—Public Relations & Research—Edward H. Arnott.

D—Insurance—William O. Buettner.

E—Grievance—Bartlett W. Eldredge.

F—Advertising—Walter McCloud.

G—National Councillor — P. Calvert Cissel.

H—Cost and Accounting—Edward H. Arnott.

I—Contract or Agreement Forms—William O. Buettner.

J—Auditing—Alfred Schmitthenner.

Announcements and Adjournment for Luncheon.

Afternoon: 2:00-5:00

Reconvene—C. Norman Dold, presiding; Jesse M. Miller, Regional Vice-President for the Western States, assisting.

Address—Dr. E. A. Back, Principal Entomologist, Insects Affecting Man and Animals, Bureau of Entomology, U. S. Department of Agriculture.

Address — "The Pyrethrins—What Do They Mean"—Dr. Alfred Weed, John Powell & Co., New York.

Address — "European and American Methods of Rodent Control"—Ernest M. Mills, Bureau of Biological Survey, Agricultural College of Northeastern States, Amherst, Mass.

Address—"Exterminators and Entomologists as Cooperators" — Prof. J. J. Davis, Chief in Entomology, Purdue University, Lafayette, Ind.

Evening: 7:30

Products Night — William O. Buettner, Leader. Manufacturers and supply houses having booth exhibits will explain salient features of their displays. Other special features will also be offered.

OCTOBER 27, 1936

Morning: 9:00-12:30

Convention Called to Order—C. Norman Dold presiding; Martin Meyer assisting.

Shaeffer Method of Artificial Respiration—A demonstration by Cleveland Fire Department.

Address—"Modern Fumigation and Extermination Practices in Europe"—Dr. Phil W. Heerdt, representing Deutsche Gesellschaft fur Schallings-Bekampfung m.b.H., Frankfurt (Main), Germany.

"Rat Research Clinic"—M. G. Jorgenson, Leader, Jorgenson & Co., Los Angeles; G. C. Oderkirk, Bureau of Biological Survey, Lafayette, Ind.; Dr. George Chapman, American Cyanamid & Chemical Co., New York.

"Roach Research Clinic"—Irving H. Josephson, Leader, Josephson Disinfecting Co., New York; Harold B. Noble, S. B. Penick & Co., New York; Dr. E. A. Back, Principal Entomologist, Insects Affecting Man and Animals, U. S. Bureau of Entomology.

"Fumigation Research Clinic" — Max Rukin, Leader, Stone Chemical Laboratories, Inc., Chicago; Dr. C. A. Vincent-Daviss, E. I. duPont de Nemours, Wilmington, Delaware; Fred Hubbell, Calcyanide Co., New York; Thomas A. O'Leary, Acme Protection Equipment Co., Pittsburgh.

Afternoon: 2:00-5:30

Reconvene—C. Norman Dold presiding; William A. Elliot assisting.

"Bed Bugs Research Clinic"—George L. Hockenyos, Leader, Sentinel Insect Control Co., Springfield, Ill.; Arthur Srebren, Murray-Nickell Manufacturing Co., Chicago; Dr. R. B. Stoddard, R. J. Prentiss Co., New York.

"Termite Research Clinic" — George A. Rader, Leader, Berkeley, Cal.; Wallace B. Tanner, California Termite Control Co., Los Angeles; Dr. John Kreer, Antimite Co., St. Louis.

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"Ant Research Clinic"—Robert B. Loibl, Sr., Leader, Ant-B-Gon Products Co., Los Angeles; T. S. Darling, Lethelin Products Co., Manhasset, N. Y.; P. Calvert Cissel, American Disinfectant Co., Washington, D. C.

"Business Forms Clinic"—Benjamin U. Baker, Leader, Exterminator Engineering Corp., Chicago; A. E. Ritt, Vogel-Ritt Co., Philadelphia.

Evening: 8:00

Frolic and Entertainment, followed by refreshments.

OCTOBER 28, 1936

Morning: 9:30-11:45

Convention Called to Order—C. Norman Dold presiding.

Report — Committee for Proposal of 1937 and 1938 Conventions.

Report—Nomination Committee.

Election of Officers and Directors.

Vote on Selection of 1937 and 1938 Conventions.

General Business—

A—Discussion and Action on Committee Reports.

B—Resolutions Committee.

Afternoon: 2:00

Sightseeing Trip—Meet in lobby of Hotel Statler. This trip will take the group throughout the principal sections of the city and a visit through Nela Park.

Evening: 7:30

Annual Banquet—Max J. Levy, toastmaster, President of Northwestern Association of Exterminators and Fumigators, St. Paul, Minn., Twin City Exterminating Co.

◆

Federal Opens Canadian Plant

Federal Varnish Co., Chicago, manufacturer of floor finishes, announces that due to steadily increasing business in Canada, a branch factory is being opened in Toronto. It is now possible for Canadian customers to receive shipment on all standard items in the Federal line direct from Toronto.

◆

Exterminator At New Address

Bryson Exterminating Co. has moved from 157 Prospect St., Avon, N. J. to 930½ Fourth Ave., Bradley Beach, N. J.

◆

Hall Lowell Sales Manager

C. E. Hall, formerly with H. D. Hudson Mfg. Co., Chicago, has joined Lowell Metal Products Co., Lowell, Mich. Mr. Hall will be in charge of the company's sales.

◆

John Powell Robbed

John Powell of John Powell & Co., New York, was a victim of a night burglar recently while stopping at the Mansfield Leland Hotel, Mansfeld, Ohio. He was accompanied

"We Wuz Robbed"

at the time by David Lynch of the office of H. J. Ahles, Chicago, midwest representative for the Powell company. The thief jimmied the door of their room while they slept and robbed the pair of about two hundred dollars.

St. Louis Firm Expands

Expansion of business has forced National Sanitary Products Co., 219 North Second St., St. Louis, to acquire the lease on a building across the street from their quarters. Although this affords them an additional 10,000 square feet of warehousing space, they are still cramped, according to Charles Buschart, secretary and treasurer. The company, which was established in 1922, is engaged in the manufacture of metal polish, auto polish, insecticides and disinfectants. George R. Nelson is president.

◆

Issue Termite Text

A booklet on termites has just been issued by the American Fire & Casualty Insurance Co. Copies are available without charge to interested parties through any office of the group.

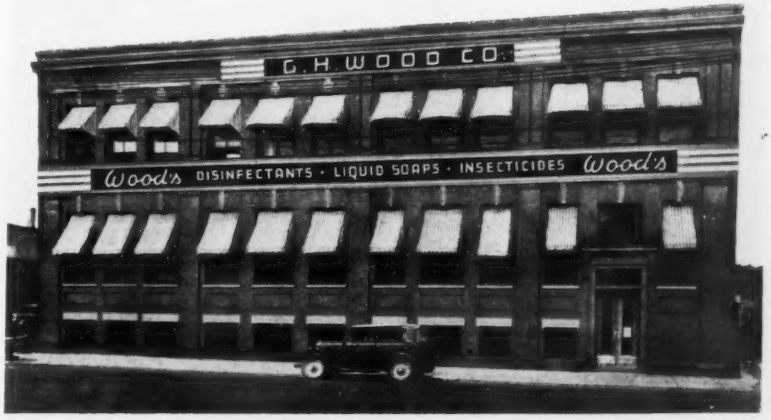
◆

Saw-Fly Bulletin

A bulletin dealing with the saw-fly and its destruction of spruce timber has just been issued by the Department of Agriculture of the Canadian Dominion Government.

Wood Buys New Building

G. H. Wood & Co., sanitary products, have just purchased a new building at 323 Keele St., Toronto, to take care of expanding business. They claim that upon completion of remodeling the new building will be the most up-to-date sanitary products factory in Canada. The new plant will take the place of the company's factory at 736 Dundas St., East Toronto, which was badly damaged by fire last March. G. H. Wood & Co. also maintain a factory in Montreal and have offices and warehouses in other cities.



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Fergusson Forms New Division

Alex C. Fergusson Co., Philadelphia, has just established a new division to handle a complete line of coaltar products. Morris C. Swope, who has been in the coaltar products business for 14 years and was formerly an officer and plant manager of Coopers Creek Chemical Co. is the division manager.

Professional Ass'n Moves

The offices of the Professional Exterminators Ass'n were moved the middle of last month to new quarters in Room 2002, 50 Union Square, New York. The new telephone number is Stuyvesant 9-3877. N. K. Concannon is executive secretary of the Professional Exterminators Ass'n.

Sanitary Supply Firm Moves

Auburn Sanitary Laboratories, soaps, polishes, and cleaning compounds, have moved from 8130 Lafayette Ave., Chicago, to 10131 S. Morgan St.

Aalco Chem. Co. Moves

Aalco Chemical Co., St. Louis, manufacturers of insecticides, has moved from its old location at 5827-29 Roosevelt Ave., to larger, more modern quarters at 4342 Manchester Ave., where it occupies both floors of the two-story building. The company has distribution of its products in Missouri and Illinois, principally in the latter state. F. Fiegenbaum is proprietor.

Clorox Joins NAIDM

Clorox Chemical Co., Oakland, Calif., has just been elected to active membership in the National Association of Insecticide and Disinfectant Manufacturers.

New Exterminators Ass'n

The Associated Exterminators and Fumigators of New York have incorporated recently with a charter membership of thirty-eight firms in the New York district. William O. Buettner, Oscar G. Buettner & Son, Brooklyn, heads the new organization which will in a measure fill the place of the New York Society of Exterminators and Fumigators, disbanded last year. Other officers are: M. M. Horowitz, Excelsior Exterminating Co., New York, vice-president; Arthur

William O. Buettner
Heads New Association

W. O'Connor, Security Exterminating Co., Brooklyn, secretary; and Frank W. Rauch, Empire Exterminating Co., treasurer.

The purposes for which the organization is formed according to the articles of incorporation are:

(a) For the promotion of general standards and ethics of the exterminating and fumigating industry.

(b) To foster research and diffusion of knowledge among its membership.

(c) To foster, promote and encourage civic, social, commercial and industrial welfare of said industry.

(d) To promote and foster satisfactory relationship between its members and employees, and to represent its members in negotiations involving labor matters.

For the moment the labor question will be the principle concern of the new organization in view of the strike in the New York district which still drags on in some quarters.

Exterminators Move

Aalco Fumigating and Exterminating Co., formerly at 2716 N Taylor Ave., St. Louis, is now located at 4418 W. Pine St.

Marshall Prods. Expands

Increased business and the opening of a new department will compel Marshall Products, Inc., 806 North First St., St. Louis, to take over an adjoining building in the near future for storage purposes, according to Miss Ruth Rentiers, vice-president. The company, which will be six years old next February, manufactures a complete line of soaps, insecticides, cleaning compounds and disinfectants. In addition, since the first of the year, they have been engaged in the production of cosmetics.

Johnson Anniversary Offers

S. C. Johnson & Son, Inc., Racine, Wisc., are currently featuring a special 50th anniversary offer of a single carton containing a can of auto wax and a pint of auto cleaner and polish for 59 cents. The combination will be advertised on the company's radio program, in newspapers, and in business papers in much the same way that was followed in the spring campaign.

To Open Chicago Branch

Hudson Chemical Co., 114 Pine St., St. Louis, will open a sales and service branch in Chicago within the next thirty days, according to Charles L. Hudson, president. Plans are also under way, Mr. Hudson says, for the opening of an office and plant in Atlanta, Ga. The company, established in 1928, is engaged in the manufacture of sanitary supplies. A branch has been maintained in Kansas City, Mo., for the past three years.

Leaves Pulp Products

Jack M. Cross, formerly manager of the development department of Continental Can Co., and more recently sales manager of Pulp Products Co., New York, has resigned this latter position. He will announce his new connection early in October.

Exterminating Firm Moves

Crawford Exterminators, formerly of 1226 So. Pulaski Ave., Chicago, have moved to 1106 So. Kenneth Ave.

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1. No other package fits the vendor.
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A HANDY BLOWER that can be used in all positions saving powder and getting into the spots where powder KILLS all roaches and insects.

Warns on No-Rub Wax

W. A. Dolan, president of Wilbert Products, Inc., New York, manufacturers of polishes and other household items, warns against the use of the coined term "no-rub" in describing or designating water emulsion type floor waxes or other polishing products, inasmuch as this is a trade-marked name owned by that company. In a communication to SOAP, Mr. Dolan states:

"I have noticed from time to time in describing no rubbing wax in SOAP, that you use our coined word "No-Rub." Undoubtedly this is done unintentionally and without any thought of infringing our trade mark. As you know, we have "No-Rub" registered in the United States Patent Office under dates of March 10th, 1925 Number 196248 and February 28th, 1933 Number 301460.

I have found that manufacturers of no rubbing waxes, when we have called their attention to their unfair competition in using the word "No-Rub," have cooperated by using the proper descriptive designation . . . no rubbing or self polishing.

During the days of NRA the Wax Code Authority helped to notify the larger manufacturers and private label distributors about using the name "No-Rub" because they considered it was unfair competition. Now, of course, our only recourse is to the courts and publicity will help avoid this needless expense, particularly on the part of those who want to be fair and are not seeking an unearned advantage.

Manufacturers that have gone into this water-wax business in the last couple of years don't sense the sound reason for the prevalence of coined words among the early brands. For example, Dri-Brite, No-Rub, Glo-Coat, Wax-Rite, etc. We were faced with the problem of bringing to the public an entirely new conception in waxing floors. True enough it is a liquid, but we could not use the designation liquid wax, because in the consumer mind, this is associated with the turpentine products. Now of course, the consuming public knows all about the no-rubbing form of wax. Therefore, the problem today is not so much educating them as to use but advertising to get a particular brand in demand.

We use the word "No-Rub" as a trade-mark family name for our products No-Rub Floor Wax, No-Rub Furniture Polish and No-Rub Shoe White. To prove my point we have had over thirty cases of manufacturers and private brand distributors discontinue using the word "No-Rub" in connection with Floor Wax. Yet, on the other hand we have not had a case on record of using the word "No-Rub" on Furniture Polish and Shoe White. The reason is obvious because we haven't advertised the Furniture Polish or Shoe White for a long enough period to make the name "No-Rub" important in connection with those type products, whereas, on the other hand, the Floor Wax story is just the reverse. We have spent considerable sums and are spending to make the public conscious of the brand "No-Rub." At the present time, we are on ten radio stations and we are running current advertising in Good Housekeeping, Ladies Home Journal and Womans Home Companion, together with trade magazines. There is no doubt in my mind that in a couple of years from now, when we have made our brand of Furniture Polish and Shoe White as popular as we have our Floor Wax, manufacturers and private label distributors will then claim that they only use "No-Rub" descriptively in describing white shoe cleaner or furniture polish. Therefore, the problem only arises as the trade name becomes more intrenched through advertising in the consumer's mind.

"No-Rub" is not correctly descriptive. It has no place in the dictionary no more nor less than other well known cleaning or polishing products such as Super Suds for soap—Windex for windows—Drano for drains—Sani-Flush for flushing toilet bowls—Gre-Solvent for greasy hands. As with other advertised products continued advertising does the job so well that people really believe that they have always used the word "No-Rub" instead of what is obviously correct,—no-rubbing."

Snakes Aid Disinfectant Sales

A novel use for one of the disinfectants manufactured by Extermo Products Co., 504 Chouteau Ave., St. Louis, has been found by the curator of the reptile house at the St. Louis zoo. His wriggling charges are afflicted with parasitic mites that get beneath their scales and eventually work into the eyes of the snakes. By applying a weak solution of disinfectant to the affected parts, it was discovered, the mites were instantly killed; and at intervals now the snakes are subjected to this de-miting process. Extermo company was founded by William G. Duncan in 1924. He operated the business on his own account until 1927 when George E. Dieckman was admitted to partnership.

Cement Deodorizing Block

A deodorizing composition is made by mixing activated carbon of high adsorptive power in a mass containing Portland cement, water and powdered aluminum,—the water being sufficient in amount to saturate the Portland cement and the aluminum. This forms gas which creates cavities within the mass,—the gas serving to carry particles of activated carbon to the walls of the ramified areas prior to setting. This gives a high concentration of carbon along the walls of the cavities to contact air to be purified when the hardened composition is in use. C. J. Burgess. Canadian Patent No. 358,327.

Brooklyn Soap Firm Moves

Perfect Polish Co., soaps and sanitary products, formerly at 109 Broadway, Brooklyn, has moved to 715 Driggs Ave.

Take Over Opitz Sales

Exclusive sales agency for "J-O" insecticides, products of John Opitz & Co., New York, has just been taken over by J. R. Smith Sales Co., Chicago.

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SILICATE OF SODA

ESTABLISHED 1869

MECHLING BROS-CHEMICAL COMPANY

PHILADELPHIA • CAMDEN, N.J. BOSTON, MASS.

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for improved emulsions

Use the GAULIN two stage HOMOGENIZER

Don't be satisfied with putting out an ordinary product when a moderate investment in this machine will insure your getting a really outstanding product. The HOMOGENIZER steps up disinfectant coefficients, by producing a better dispersion, makes a good polish that will not separate and is indispensable in the production of a worth while liquid floor wax. Send us a sample of your product. We will Homogenize it for you with no obligation.

Manton-Gaulin Mfg. Co.

19 Charlton St. Everett, Mass.

Classified Advertising

Brings excellent results at a minimum cost. Rates are only 10c per word with a minimum charge of $2 per issue (position wanted advertisements accepted at half rates). Whether you have some surplus equipment or material for sale, have a position open or are looking for a new connection, etc., use space in the Classified Section of *Soap.* It ★★★ will place you in touch with the entire soap and sanitary products industry.

Pine Oil Disinfectants

PINE oil disinfectants are generally manufactured on a soap base which may be prepared by the saponification of rosin, linseed oil, castor oil, etc. Of these, rosin is the cheapest and although the soap obtained gives a rather tacky product, dilution results in a satisfactory milk-white emulsion. A disinfectant of this type can be made as follows:

	Parts
Rosin	4
Caustic soda solution (12½%)	4
Pine oil	3
Water	40

The rosin is melted at 80° C. and the caustic soda solution added, with brisk stirring for 20-30 minutes. At this stage the pine oil is gradually introduced. The quantity of oil may be considerably greater than that given in the formula, but this factor, and also the grade of oil to be used, are decided by economic considerations. It is of advantage to add a small amount of bornyl acetate to the pine oil, as this gives a more pronounced odor.

A somewhat better product than the above can be readily diluted to any concentration with the formation of a good stable emulsion. It is prepared by utilizing the remarkable emulsifying properties of triethanolamine soap:

	Parts
Triethanolamine	2
Oleic acid (commercial)	5
Pine oil	90
Water	100

The triethanolamine is dissolved in the water and stirred into the mixture of oleic acid and pine oil. Saponification takes place quickly, giving a mixture of uniform consistency. It may be diluted as required.

A type of pine disinfectant which has become somewhat popular of late is produced in the form of a transparent block which is readily soluble in hot or cold water to give a milky emulsion. It is produced by taking advantage of the fact that trihydroxyethanolamine linoleate gives a solid jelly when essential oils, with or without the addition of other fats, oil, etc., are dissolved in it in suitable quantity. The stearate behaves similarly.

Formaldehyde may be incorporated in this type of product very readily by dissolving 6 parts of formalin with an equal amount of pine oil in 40 parts of industrial alcohol. This solution is then introduced into the soap in place of the pine oil in one or other of the methods described. Formaldehyde is said to be particularly valuable in a disinfectant to be sprayed into the air. *Manufacturing Chemist* **7**, 282 (1936).

Metal Polish

To prepare a liquid metal polish which can also be used for cleaning windows and mirrors, dissolve 5 parts of curd soap in 50 parts of boiling water. This would set to a jelly by itself on cooling. Disperse in the hot soap solution 5 parts of olein distillate and 20 parts of finely ground chalk and saponify with 3 parts of 25 per cent ammonia (sp. gr. 0.91). After the temperature has fallen to about 60° C. (140° F.), stir in 17 parts of denatured alcohol. This keeps the mixture liquid. *Seifensieder-Ztg.* **63**, 377 (1936).

Optical Activity of Derris

It is important to separate the known from the speculative, with regard to the toxic compounds present in derris. It has been proved that (1) the non-rotenone portion of derris resin has high toxicity to insects, (2) [e] *l*-dihydrodeguelin is much more toxic than *dl*-dihydrodeguelin, (3) *l*-isorotenone is more toxic than *dl*-isorotenone, and (4) *dl*-deguelin is not sufficiently toxic to account for the toxicity of the non-rotenone portion of derris extract.

It is highly probable that (1) derris extract contains an active deguelin and (2) neither of the optically active deguelins corresponding to the known *dl*-deguelin is sufficiently toxic to account for the toxicity of the non-rotenone portion of derris extract.

It is possible that (1) *l*-dihydrodeguelin does not correspond in "ring-type" to the known *dl*-dihydrodeguelin, (2) the naturally occurring active deguelin and the known *dl*-deguelin are related as are *l*- and *dl*-dihydrodeguelin, and (3) naturally occurring deguelin exceeds the known *dl*-deguelin greatly in toxicity.

The uncertainties of these probabilities and possibilities are so great that it is premature to regard a connection between the toxicity of the non-rotenone portion of derris resin and the presence of optically active deguelin, as more than a reasonable possibility. R. S. Cahn. *J. Soc. Chem. Ind.* **55**, 259-60T (1936).

White Wax Polish

A white wax polish is made by emulsifying carnauba wax with soap or stearic acid. Paraffin wax can be used as a filler to cheapen the polish. The following are basic formulas:

I.

	Parts
Carnauba wax	7
Paraffin wax	2½
Turpentine	10
White curd soap	2¾
Water	25

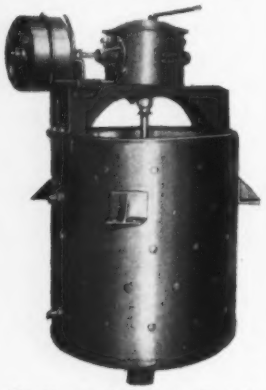
II.

	Parts
Carnauba wax	30
Turpentine	40
Stearic acid	2
Triethanolamine	1
Water	30

The waxes are melted and the turps added in one vessel, the soap being dissolved in the water with gentle warming in a second vessel. When dissolved the wax-turpentine mixture is poured into the soap with vigorous stirring. A small quantity of caustic potash added to the soap solution will assist emulsification. The triethanolamine can be substituted by caustic potash and the amount of stearic acid can be varied to alter the consistency of the polish. In any case, the amount of soap must be kept at the lowest possible proportion that will make the emulsion stable, as it does not possess any polishing properties. *Manufacturing Chemist* **7**, 282 (1936).

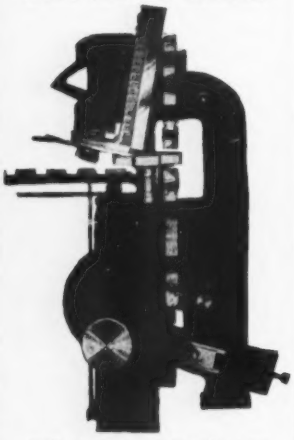
Special Offerings of

New CRUTCHERS



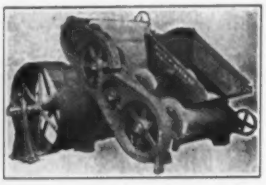
This Newman brand new, all steel, steam jacketed soap crutcher will crutch any kind of soap. We also build another crutcher especially adapted for laundry soap.

Automatic JONES PRESS



Small size fully automatic Jones toilet soap press. Capacity 150 to 200 small cakes per minute. A real buy at an attractively low price. Has been completely rebuilt in our shops.

H-A SOAP MILL



This 4-roll granite toilet soap mill is in A-1 shape. Latest and largest size rolls. Priced for quick sale.

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by

NEWMAN

We carry a complete line of equipment for the soap and sanitary products industry. All used equipment is rebuilt in our own shops and is guaranteed to be in first class condition. All new equipment that we manufacture such as crutchers, frames and cutting tables is of the finest material and workmanship. You can buy with confidence from Newman.

USED SPECIALS

For the Soap, Chemical, Cosmetic and Allied Trades

- H-A, 1500, 3000, 4000, 5000 lbs. capacity. Steam Jacketed Crutchers.
- Dopp Steam Jacketed Crutchers, 1000, 1200, 1500 lbs. and 800 gals. capacity.
- Ralston Automatic Soap Presses.
- Scouring Soap Presses.
- Empire State, Dopp & Crosby Foot Presses.
- 2, 3, 4, 5 and 6 roll Granite Toilet Soap Mills.
- H-A 4 and 5 roll Steel Mills.
- H-A Automatic and Hand-Power slabbers.
- Proctor & Schwartz Bar Soap Dryers.
- Blanchard No. 10-A and No. 14 Soap Powder Mills.
- J. H. Day Jaw Soap Crusher.
- H-A 6, 8 and 10 inch Single Screw Plodders.
- Allbright-Nell 10 inch Plodders.
- Filling and Weighing Machine for Flakes, Powders, etc.
- Steel Soap frames, all sizes.
- Steam Jacketed Soap Remelters.
- Automatic Soap Wrapping Machines.
- Glycerin Evaporators, Pumps.
- Sperry Cast Iron Square Filter Presses, 10, 12, 18, 24, 30 and 36 inch.
- Perrin 18 inch Filter Press with Jacketed Plates.
- Gedge-Gray Mixers, 25 to 6000 lbs. capacity, with and without Sifter Tops.
- Day Grinding and Sifting Machinery.
- Schultz-O'Neill Mills.
- Day Pony Mixers.
- Gardiner Sifter and Mixer.
- Proctor & Schwartz large roll Soap Chip Dryers complete.
- Doll Steam Jacketed Soap Crutchers, 1000, 1200 and 1350 lbs. capacity.
- Day Talcum Powder Mixers.
- All types and sizes—Tanks and Kettles.
- Ralston and H.A. Automatic Cutting Tables.
- Soap Dies for Foot and Automatic Presses.
- Broughton Soap Powder Mixers.
- Williams Crutcher and Pulverizer.
- National Filling and Weighing Machines.

Plant of the Holman Soap Co., Chicago, is offered for sale. Completely equipped modern factory.

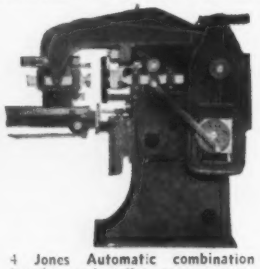
Send us a list of your surplus equipment—we buy separate units or complete plants.

Newman Tallow & Soap Machinery Co.

1051 W. 35th St., Chicago, Illinois

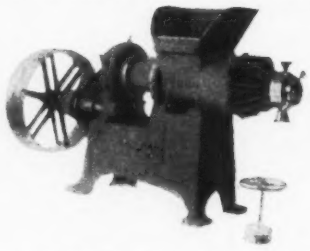
Our forty years soap experience can help solve your problems.

JONES AUTOMATIC



4 Jones Automatic combination laundry and toilet soap presses. All complete and in perfect condition.

SINGLE SCREW SOAP PLODDER



Single screw soap plodders with 6, 8, 10 or 12 inch screws. All completely rebuilt and unconditionally guaranteed.

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Soapmaker and chemist with practical soap experience and excellent references looking for position. Very reasonable salary. Address Box No. 819, care *Soap*.

Practical Soap Maker with 35 years' experience in Europe, Latin America, and a good record with several leading American soap manufacturers and best references, desires new position. Can manufacture every kind of soap by the cold, semi-boiled, boiled and leading processes of laundry, toilet milled, and textile soap. Have technical education, experience in laying out plants and producing new lines. Address Box No. 820, care *Soap*.

Manufacturers' representative selling to the wholesale grocers and chain stores in Philadelphia, eastern Pennsylvania, Baltimore, and Washington, D. C., wants connection on brokerage basis. Address Box No. 818, care *Soap*.

Soapmaker—man with 5 years' experience in Germany and Central America in the manufacture of various types of soaps and cosmetics and also considerable experience in oil and fat refining, desires a position with an American concern. Salary to start of no importance. Good references from previous employers. Address Box No. 813, care *Soap*.

Soapmaker—expert in manufacturing all sorts of toilet and household soaps, soap powders and crystal soda, wants position; 30 years' experience in Europe. Address Box No. 814, care *Soap*.

California—Connections for 1937 desired by competent soap maker and chemical engineer with 14 years' practical experience. Excellent references. Not interested unless full responsibility over production, analyses and equipment. Address Box No. 815, care *Soap*.

Soapmaker and Chemist—whose past record and experience qualify him for meeting highest technical requirements, desires steady employment with progressive concern. Address Box No. 825, care *Soap*.

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SPECIALS

Machinery from former plants of National Soap Powder Co., A. W. Barnes Soap Co., and Pennsylvania Soap Co.

1—Allbright-Nell 4'x8' Cooling Roll, with top feeder roll, scraping knife.
4—5000 lb., 1500 lb., 1000 lb., Jacketed Vertical Crutchers.
2—1500 lb. Horizontal Crutchers.
1—Steel Soap Kettle, 5' dia. x 10' high.
1—Houchin 400 lb. Amalgamator.
4—Houchin Soap Plodders, 8" and 10".
2—Rucchmann 4-roll inclined Granite Mills, 18"x24", motor driven.
1—Broughton 1200 lb. Soap Powder Mixer.
2—Tabor Soap Pumps.
4—Houchin 4 and 6-knife Chippers, 20".
1—Houchin Soap Foot Press.
1—Houchin 1500 lb. Power Slabber.
1—Houchin Hand Slabber.
2—Houchin 2-way Soap Cutting Tables.
1—Jones "A" Automatic Soap Press.

1—Proctor and Schwartz Soap Chip Dryer, steel frame, 7-section, 1—cooling section, complete with 5-roll P. & S. Mill. Located on Pacific Coast.

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1—Jones Automatic Pin Die Press.
2—Houchin-Aiken Empire State Foot Pressses.
1—2 way Soap Cutting Table.
6—400 lb. Soap Frames.
20—1200 lb. Soap Frames.
1—10A Blanchard Mill.
1—65 Gal. Dopp Jacketed Kettle.
1—Soap Chipper.
1—Soap Grinder.
4—Filter Presses—10" to 24" Square.
2—Jacketed Vertical Crutchers.
3—Vertical Jacketed 3000 lb. Kettles.
6—Glass Lined Kettles, 50 to 3000 Gals.
1—Soap Slabber.
1—Proctor 4 Fan Soap Chip Dryer.
3—Plodders; 6", 10" and 12".
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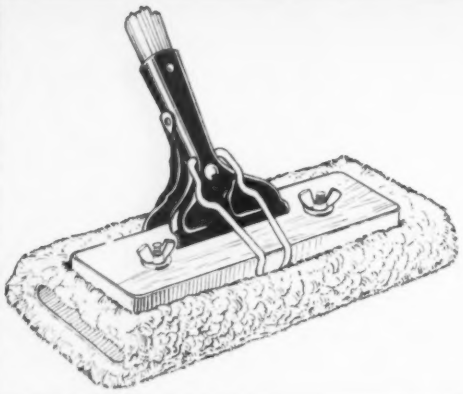

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TOILET SOAPS
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Chemist and Research Director—20 years' broad experience with waxes, resins, sizes, varnishes, waterproofing, molded products, paper specialties. Address Box No. 816, care *Soap.*

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Wanted experienced salesman for line of high grade industrial insecticides to be sold in bulk to food factories, flour-mills, bakeries, hotels, etc. High commission, drawing account when qualified. Address Box 830, care *Soap.*

A Prominent Manufacturer of liquid soaps, disinfectants, deodorizing cakes, etc., has an opening for a dependable sales representative. Address Box No. 828, care *Soap.*

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Respirators, Goggles, Thermometers and Hydrometers for every purpose. Write for prices. General Scientific Co., 2620 N. 23rd St., Philadelphia, Pa.

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Expert trouble shooter, soapmaker chemist with long experience offers assistance. Formulas, shortcuts and analyses for textile, laundry, dry-cleaning, toilet, filled, powdered, rug and oil soaps; Castile soap, shampoos and shaving cream; Insecticide and self-polishing wax. Results or money back. Address Box No. 817, care *Soap.*

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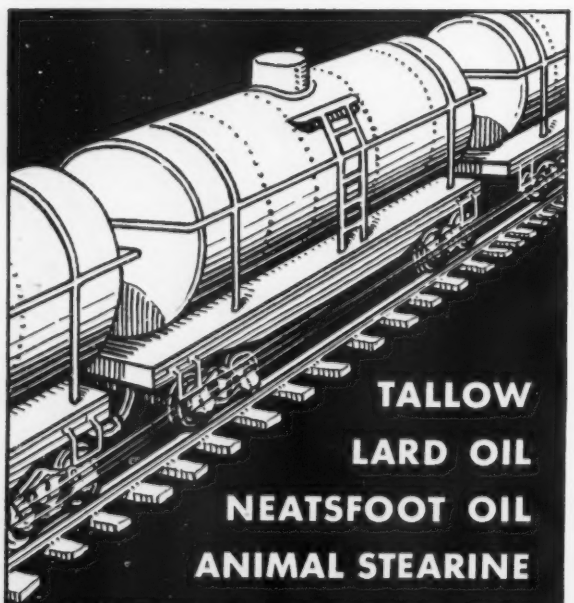

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Columbia Alkali Co.
T. G. Cooper & Co.
Dow Chemical Co.
Eastern Industries
Hooker Electrochemical Co.
Innis, Speiden & Co.
Niagara Alkali Co.
H. H. Rosenthal Co.
Solvay Sales Corp.
Jos. Turner & Co.
Warner Chemical Co.
Welch, Holme & Clark Co.

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American-British Chemical Supplies
Aromatic Products, Inc.
Compagnie Parento
Dodge & Olcott Co.
Dow Chemical Co.
P. R. Dreyer, Inc.
E. I. du Pont de Nemours & Co.
Felton Chemical Co.
Firmenich & Co.
Charles Fischbeck & Co.
Fritzsche Brothers, Inc.
Givaudan-Delawanna, Inc.
Magnus, Mabee & Reynard, Inc.
Monsanto Chemical Co.
Norda Essential Oil & Chemical Co.
Orbis Products Corp.
Schimmel & Co.
George Silver Import Co.
Solvay Sales Corp.
A. M. Todd Co.
Ungerer & Co.
Van Ameringen-Haebler, Inc.

BULK AND PRIVATE BRAND PRODUCTS

Baird & McGuire, Inc.
Buckingham Wax Corp.
Chemical Supply Co.
Clifton Chemical Co.
Davies-Young Soap Co.
Eagle Soap Corp.
Federal Varnish Co.
Fuld Bros.
Harley Soap Co.
Koppers Products Co.
Kranich Soap Co.
Philadelphia Quartz Co.
John Powell & Co.
Geo. A. Schmidt & Co.
Uncle Sam Chemical Co.
T. F. Washburn Co.
White Tar Co.
Windsor Wax Co.

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Dow Chemical Co.
E. I. du Pont de Nemours & Co.
Eastern Industries
General Chemical Co.
Grasselli Chemical Co.
Hooker Electrochemical Co.
Industrial Chemical Sales Co.
Innis, Speiden & Co.
Mechling Bros. Chemical Co.
Monsanto Chemical Co.
Niagara Alkali Co.
Philadelphia Quartz Co.
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Standard Silicate Co.
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Reilly Tar & Chemical Co.
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Capstan Glass Co. (Bottles)
Continental Can Co. (Tin Cans)
Maryland Glass Corp. (Bottles)
National Can Co. (Cans)
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Eagle Soap Corp.
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P. R. Dreyer Inc.
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Fritzsche Brothers, Inc.
Leghorn Trading Co.
Magnus, Mabee & Reynard, Inc.
Norda Essential Oil & Chemical Co.
Orbis Products Corp.
Schimmel & Co.
George Silver Import Co.
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Anthony J. Fries (Soap Dies)
Houchin Machinery Co. (Soap Machinery)
Huber Machine Co. (Soap Machinery)
International Nickel Co. (Monel Metal)
R. A. Jones & Co. (Automatic Soap Presses and Cartoning Machinery)
Manton-Gaulin Mfg. Co. (Homogenizer)
Mixing Equipment Co. (Mixers)
Package Machinery Co. (Packaging)
Proctor & Schwartz (Dryers)
C. G. Sargent's Sons Corp. (Dryers)
Stokes & Smith Co. (Packing Machinery)
Western Precipitation Co. (Multiclones)

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Newman Tallow & Soap Machinery Co.
Stein Equipment Corp.

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Anchor Cap & Closure Corp. (Metal Caps)
T. G. Cooper & Co. (Waxes)
Dobbins Mfg. Co. (Pails, Mop Wringers, etc.)
General Chemical Co. (Fluorides)
General Naval Stores Co. (Pine Oil-Rosin)
Hercules Powder Co. (Pine Oil and Rosin)
Industrial Chemical Sales Co. (Decol. carbon, Chalk)
Innis, Speiden & Co. (Fumigants and Waxes)
Pylam Products Co. (Lathering Agent)
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